

THR12

Management Administration II

mySAP Human Resources

Date _____
Training Center _____
Instructors _____
Education Website _____

Instructor Handbook

Course Version: 2006 Q2
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Material Number: 50080072
Owner: Alfred Wolter (D019740)



An SAP Compass course - use it to learn, reference it for work

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About This Handbook

This handbook is intended to complement the instructor-led presentation of this course, and serve as a source of reference. It is not suitable for self-study.






Typographic Conventions

American English is the standard used in this handbook. The following typographic conventions are also used.

Type Style	Description
<i>Example text</i>	Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths, and options. Also used for cross-references to other documentation both internal (in this documentation) and external (in other locations, such as SAPNet).
Example text	Emphasized words or phrases in body text, titles of graphics, and tables
EXAMPLE TEXT	Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example SELECT and INCLUDE.
Example text	Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, and passages of the source text of a program.
Example text	Exact user entry. These are words and characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.

Icons in Body Text

The following icons are used in this handbook.

Icon	Meaning
	For more information, tips, or background
	Note or further explanation of previous point
	Exception or caution
	Procedures
	Indicates that the item is displayed in the instructor's presentation.

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Course Overview

The course THR12 Management/Administration II is the second classroom course in the SAP Consultant training track in HR. Once you have completed the Solution Manager Overview e-learning course, in the first week of the course you learn about payroll in more detail. In the second week, you learn more about organization management. You then edit your first project.

The exercises for the following lessons are optional and are not part of this course.

- Entering Payroll Data
- Organizing a Live Payroll Run
- Payroll Process
- Personnel Calculation Rules for Factoring
- Manager's Desktop
- Standard Reports

Target Audience

This course is intended for the following audiences:

- Application consultants who are responsible for implementing mySAP HR

Course Prerequisites

Required Knowledge

- Experience in company management in the area of Human Resources
- THR10
- Solution Manager Overview e-learning course

Course Duration Details

Unit 1:

Entering Payroll Data

Entering Payroll Data	30 Minutes
Exercise 1: Entering Payroll Data	15 Minutes

Unit 2: Organizing a Live Payroll Run

Organizing a Live Payroll Run	75 Minutes
Exercise 2: Organizing a Live Payroll Run	15 Minutes

Unit 3: Payroll Process

Payroll Process	70 Minutes
Exercise 3: Payroll Process	25 Minutes

Unit 4: Payroll Basics

Introduction to Payroll Concepts	40 Minutes
Exercise 4: Hiring an Employee	20 Minutes
SAP Payroll Concepts	35 Minutes
Exercise 5: Schema Editor, Main Schema, and Subschemas	10 Minutes

Unit 5: Personnel Calculation Rules

Introduction to Personnel Calculation Rules	40 Minutes
Internal Payroll Tables and Function PIT	40 Minutes
Exercise 6: Functions for Processing Internal Payroll Tables	15 Minutes
Maintenance of Personnel Calculation Rules	40 Minutes
Exercise 7: Creating Personnel Calculation Rules	30 Minutes

Unit 6: Starting Payroll

Setting Up Payroll	40 Minutes
Reading the Master Data into Internal Tables	40 Minutes
Exercise 8: WPBP Splits	30 Minutes

Unit 7: Valuation of Wage Types

Valuation Using Constant Remuneration	30 Minutes
Exercise 9: Creating Constant Valuation Bases	20 Minutes
Person-related Valuation Bases	30 Minutes
Exercise 10: Creating Person-Related Valuation Bases	10 Minutes
Exercise 11: Assigning Valuation Bases/Derived Wage Types	10 Minutes

Unit 8: Absence Valuation

Valuating Absences	40 Minutes
Exercise 12: Valuating Absences	20 Minutes

Unit 9: Time Wage Type Selection

Introducing Time Wage Type Selection	30 Minutes
Time Wage Type Selection Using Rules	30 Minutes
Exercise 13: Generating Wage Types	20 Minutes

Unit 10: Average Processing

Remuneration Using Averages	30 Minutes
Exercise 14: Creating Average Calculation Bases	10 Minutes
Average Calculation Rules	30 Minutes
Exercise 15: Average Calculation Rules	10 Minutes
Exercise 16: Adjusting Average Calculation Bases	20 Minutes
Exercise 17: Frozen Averages	20 Minutes

Unit 11: Factoring

Introduction to Factoring	30 Minutes
Personal Calculation Rules for Factoring	40 Minutes

Exercise 18: Determining and Assigning Reduction Factors	20 Minutes
Cost Accounting	35 Minutes
Unit 12: Cumulation Wage Types	
Cumulating and Storing Wage Types	40 Minutes
Unit 13: Recalculation	
Calculating Retroactive Accounting Differences	35 Minutes
Unit 14: Mini Case Study HR400	
Mini Case Study HR400	120 Minutes
Unit 15: Introduction	
Introduction	30 Minutes
Unit 16: Concepts of Organizational Management	
Object Types	30 Minutes
Exercise 19: Object Types	5 Minutes
Object Relationships	30 Minutes
Exercise 20: Object Relationships	10 Minutes
Object Properties and Planning Options	30 Minutes
Exercise 21: Object Properties and Planning Options	15 Minutes
Unit 17: The Organization and Staffing Interface	
Application Interface: Organization and Staffing	90 Minutes
Exercise 22: User Interface: Organization and Staffing	15 Minutes
Unit 18: Expert Mode: Infotype Maintenance	
Expert Mode: Infotype Maintenance	2 Hours
Exercise 23: Expert Mode: Infotype Maintenance	15 Minutes
Unit 19: General Structures	
Setting Up General Structures and Evaluation Paths	60 Minutes
Exercise 24: Setting Up General Structures and Evaluation Paths	30 Minutes
Unit 20: Integration with Personnel Administration	
Basic Integration Settings	60 Minutes
Integration Tools	60 Minutes
Exercise 25: Integration Tools	15 Minutes
Unit 21: Manager's Desktop and Manager Self-Service	
Manager's Desktop	60 Minutes
Exercise 26: Manager's Desktop	10 Minutes
Manager Self-Service	30 Minutes
Unit 22: Evaluations and Reports	
Basic Concepts of Structural Reporting	30 Minutes
Standard Reports	30 Minutes

Exercise 27: Standard Reports (optional)

15 Minutes

**Course Goals**

This course will prepare you to:

- Explain the Payroll process
- List the details of organization management

**Course Objectives**

After completing this course, you will be able to:

- Explain the Payroll process
- List the details of organization management

SAP Software Component Information

The information in this course pertains to the following SAP Software Components and releases:



Unit 1



Entering Payroll Data



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

In this unit, you will learn about the prerequisites for Payroll.

You will create an employee for whom Payroll will be run later.



Unit Objectives

After completing this unit, you will be able to:

- List the prerequisites for Payroll
- Specify the activities required when setting up Payroll
- Describe how payroll data is entered in the R/3 System for an employee

Unit Contents

Lesson: Entering Payroll Data	2
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Lesson: Entering Payroll Data



Lesson Duration: 30 Minutes

Lesson Overview

- Payroll prerequisites
- Hiring a new employee
- Organizational reassignments
- Deviations from the work schedule



Lesson Objectives

After completing this lesson, you will be able to:

- List the prerequisites for Payroll
- Specify the activities required when setting up Payroll
- Describe how payroll data is entered in the R/3 System for an employee



For more information, see the Instructor Guide in SAPNet.

Business Example

Payroll data is changed when an employee:

- Enters the company
- Changes organizational assignment
- Changes personal data
- Works overtime or takes leave

Prerequisites for Payroll



	Prerequisites	Activities
Master and time data	<ul style="list-style-type: none"> • Work schedules • Dialog and time wage types • Infotypes 0000, 0001, 0002, 0006, 0007, 0008, 0009 and country-specific infotypes (such as tax) • The payroll processes other infotypes: 0014, 0015, 2001, 2010, 2003, 2005 . . . 	<ul style="list-style-type: none"> • Use Customizing to set up and generate work schedules • Make copies of model wage types in wage type catalog to create customer wage types in customer name range • Use personnel actions to enter employee data in the system
Administration	<ul style="list-style-type: none"> • Payroll areas and periods • Payroll control record 	<ul style="list-style-type: none"> • Set up and generate using Customizing • Create using Customizing
Subsequent activities	<ul style="list-style-type: none"> • Bank details, and information on house banks • Cost centers • Remuneration statements 	<ul style="list-style-type: none"> • Usually set up by FI • Usually set up by FI - link to organizational units • Retrieve standard form
.

Figure 1: Payroll Prerequisites

A number of prerequisites must be met before you can enter and process employee data in the system. SAP provides you with a whole series of model entries, which you can then adapt to meet the needs of your particular enterprise.

The above list gives you an overview of the most important elements.

Personnel Processes

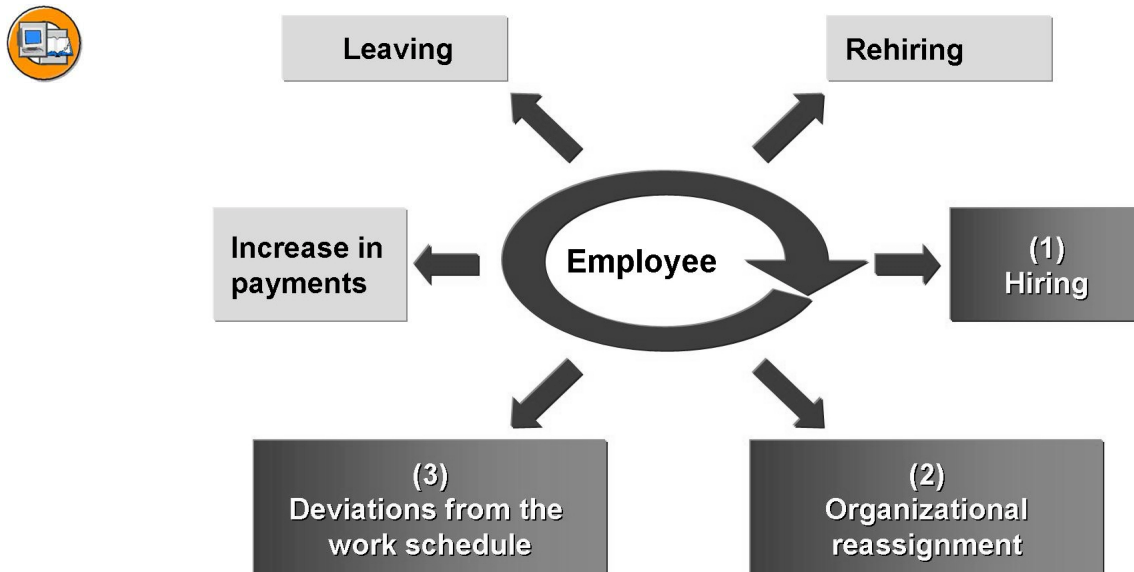


Figure 2: Overview - Personnel Processes

During an employee's employment relationship a series of events take place. These can be relevant to remuneration. If these events occur in the payroll past, they trigger retroactive accounting.

If an employee leaves your enterprise you should not delimit information regarding their remuneration and bank details immediately, as you may need this information in the event of a retroactive accounting salary change.

When an employee rejoins the company he or she is given their old personnel number again so that it is possible to have the employee's complete history.



Input templates for hiring:

- Actions (infotype 0000)
- Personal Data (infotype 0002)
- Organizational Assignment (infotype 0001)
- Addresses (infotype 0006)
- Planned Working Time (infotype 0007)
- Basic Pay (infotype 0008)
- Bank Details (infotype 0009)
- Absence Quotas (infotype 2006)

Country-specific infotypes

- For example, taxes

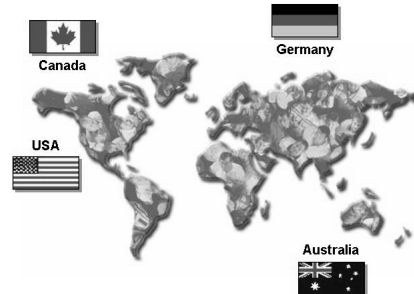


Figure 3: Ref. (1) Hiring

A hiring action consists of a series of different infotypes. Some of these infotypes, such as the ones listed on the left-hand side of the graphic, are the same for all countries. Furthermore, each country is assigned infotypes that are country-specific. They enable you to enter tax data, for example.

If you set your user parameters for a particular country, such as 01 for Germany or 10 for the USA, the system accesses the correct personnel actions, which include all of the relevant country-specific infotypes.

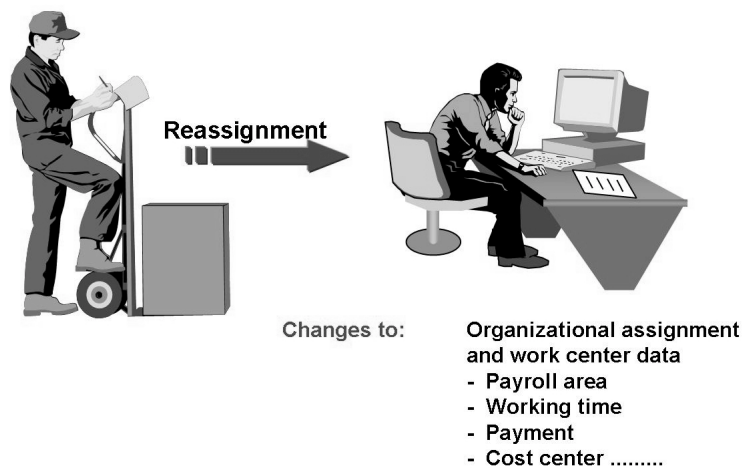


Figure 4: Ref. (2) Organizational Reassignment

Employee data can be changed in any payroll period. Such changes may be concerned with transfers, substitutions, increases or decreases in basic pay, or simply corrections. New data is either created or copied, while corrections are made by changing existing data. Sometimes, the data must be entered in a series of infotypes. At other times, you are only required to access a single infotype.

Do not forget that changes made to infotypes that are relevant to payroll, in periods for which the payroll has already run, automatically trigger retroactive accounting.

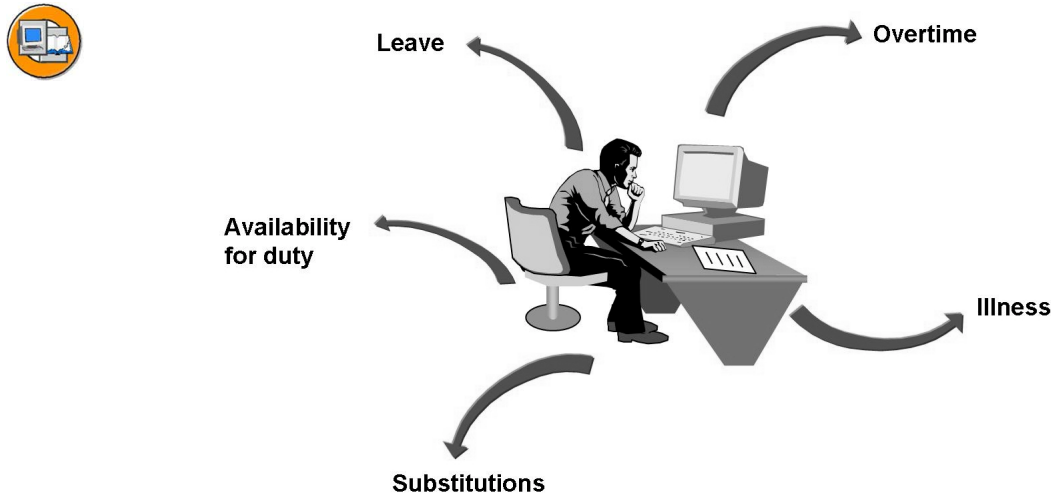


Figure 5: Ref. (3) Deviations from the Work Schedule

Deviations from the work schedule usually constitute the largest share of tasks that are periodically performed in a Human Resources department.

In the system itself, such deviations take the form of time data, such as hours or days, or remuneration data. To ensure that the correct amount of time in lieu and overtime payments are available, it is important that they are entered in the system at the right time.

The following infotypes are used to enter data that deviates from the work schedule:

Absences – 2001: Used to enter an employee's absences

Attendances – 2002: Used to enter an employee's attendances

Substitutions – 2003: Used to enter substitutions, such as when an employee works a different shift.

Availability – 2004: Used to enter times at which an employee is available for duty in addition to his or her regular shift.

Overtime – 2005: Used to enter start times and end times for additional working hours. The system automatically generates wage types in accordance with rules that can be specified in Customizing.

Employee Remuneration Information – 2010: Used to enter overtime manually, for example.

Monthly Calendar – 2051: Used to enter attendances and absences in a monthly overview screen.

Weekly Calendar – 2052: Used to enter attendances and absences in a weekly overview screen.

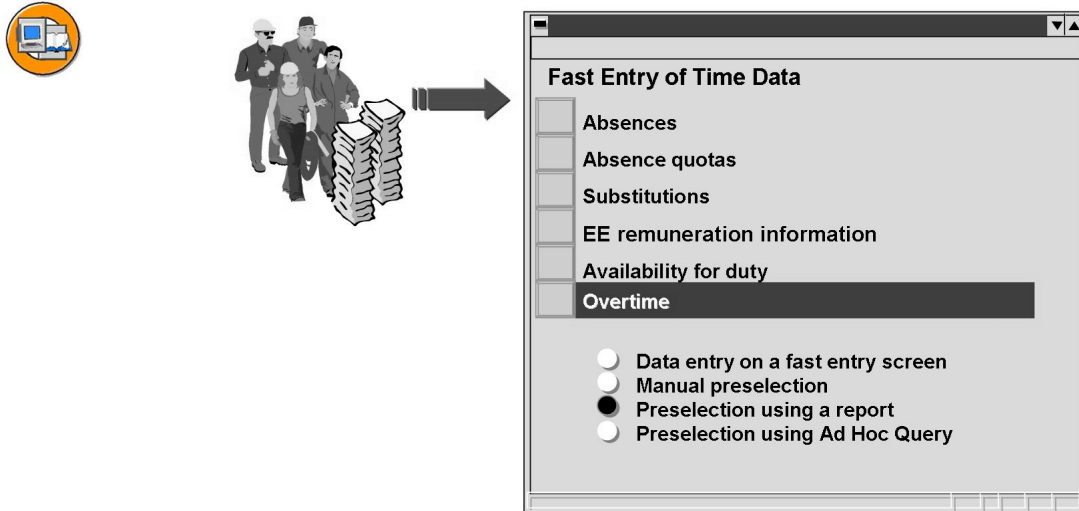


Figure 6: Methods of Entering Time Data

Fast data entry enables you to create and maintain the same infotype record for more than one employee at the same time. This means that you do not have to enter a separate record for each individual employee, and that a single screen enables you to enter the data for more than one employee simultaneously. This results in faster, more efficient data processing. All of the various types of processing (creating, changing, copying, deleting, and locking/unlocking) are available.

There are four different ways of selecting the personnel numbers to be processed:

- You can enter the personnel numbers directly in the fast entry screen
- You can list the personnel numbers yourself before maintaining the fast entry screen
- You can use a report to list the personnel numbers on the basis of specific search criteria
- You can choose your own selection criteria using the Ad Hoc Query

Summary



- **Payroll Prerequisites:**
 - Master data and time data: wage types, work schedules, and infotypes
 - Administration: payroll areas, payroll periods, and payroll control records
 - Subsequent activities: bank details, cost centers, remuneration statements
- **Entry of payroll data for employees using different personnel processes**



Exercise 1: Entering Payroll Data

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Hire a new employee
- Review the personnel file of the new employee.

Business Example

A new buyer joins the purchasing department of your company at the beginning of the year. Hire this new employee to be paid on a monthly basis.

Task 1:

Use the personnel action *Hiring Payroll* to hire the new purchasing buyer as of the beginning of the year.

1. On the *Personnel Actions* screen, assign your new buyer personnel number 110991## (## = your group number). Select the *From date* as January 01 of this year, the personnel area as *CABB*, the employee group as *Active (I)* and the employee subgroup *Salaried Employee (XO)*.
2. On the *Create Actions* screen (infotype 0000), use the structure search to find the correct position number for the buyer (##-buyer) in Central Purchasing under *Org.Units Training Group*, and save the data.
3. On the *Create Organizational Assignment* screen (infotype 0001) enter the personnel subarea 0002 (Purchasing). Overwrite the proposed payroll area XO with 60 + ## (## = your group number). Enter an administrator of your choice for payroll.



Hint: Delimit the vacancy of the position to the last day of the previous month, if the system asks you.

4. On the *Create Personal Data* screen (infotype 0002) fill in the required fields with entries of your choice and save the data.
5. On the *Create Addresses* screen (infotype 0006) fill in the required fields with entries of your choice and save the data.
6. On the *Create Planned Working Time* screen (infotype 0007) select the work schedule NORM and save the data.

Continued on next page

7. On the *Create Basic Pay* screen (infotype 0008), enter the *pay scale group E03* and *level 01*. The system enters the wage type M020 and amount €3050 as default values. Save the data.
8. On the *Create Bank Details* screen (infotype 0009), set up the bank transfer to your employee's main bank. Enter bank key *12312312* for Citibank and the bank account number (any number).
9. On the *Create Absence Quotas* screen (infotype 2006), enter a realistic value for the number of days of standard annual leave.

Task 2:

You are to find solutions for the following task:

1. Review your new employee's personnel file (personnel number *110991##*).
What infotypes exist for the employee that you did not create?

Solution 1: Entering Payroll Data

Task 1:

Use the personnel action *Hiring Payroll* to hire the new purchasing buyer as of the beginning of the year.

1. On the *Personnel Actions* screen, assign your new buyer personnel number 110991## (## = your group number). Select the *From date* as January 01 of this year, the personnel area as *CABB*, the employee group as *Active (I)* and the employee subgroup *Salaried Employee (XO)*.

- a) In the **SAP Menu** choose: *Human Resources → Personnel Management → Administration → HR Master Data → Personnel Actions*

Select ***Hiring Payroll***.

Make the following entries before carrying out the action:

Personnel number: 110991##

From: January 01 of this year

Personnel area: CABB

Employee group: 1

Employee subgroup: X0

Choose Execute

2. On the *Create Actions* screen (infotype 0000), use the structure search to find the correct position number for the buyer (##-buyer) in Central Purchasing under *Org.Units Training Group*, and save the data.
 - a) Use the **structure search** in the **Position** field to locate and select the position ## *buyer* under *Org.Units Training Group → Training International → Purchasing → Central Purchasing*. Save the data.

Continued on next page

3. On the *Create Organizational Assignment* screen (infotype 0001) enter the personnel subarea **0002** (Purchasing). Overwrite the proposed payroll area X0 with 60 + ## (## = your group number). Enter an administrator of your choice for payroll.



Hint: *Delimit the vacancy of the position to the last day of the previous month, if the system asks you.*

- a) Make the following entries and save the data:

Personnel subarea: 0002

Payroll administrator: Your choice

Overwrite the proposed payroll area X0 with 60 + ## (## = your group number).

4. On the *Create Personal Data* screen (infotype 0002) fill in the required fields with entries of your choice and save the data.
 - a) *Personal Data* (infotype 0002): Enter data of your choice and save.
5. On the *Create Addresses* screen (infotype 0006) fill in the required fields with entries of your choice and save the data.
 - a) *Addresses* (infotype 0006): Enter data of your choice and save.
6. On the *Create Planned Working Time* screen (infotype 0007) select the work schedule NORM and save the data.
 - a) *Create Planned Working Time* (infotype 0007): Enter the **work schedule rule NORM** and choose **Enter**. Data appears in the working time fields. Save the data.
7. On the *Create Basic Pay* screen (infotype 0008), enter the *pay scale group E03* and *level 01*. The system enters the wage type M020 and amount €3050 as default values. Save the data.
 - a) *Create Basic Pay* (infotype 0008): Enter the **pay scale group E03** and **level 01**. Choose **Enter**. The system enters wage type M020 as a default with the amount €3050. **Save** the data.

Continued on next page

8. On the *Create Bank Details* screen (infotype 0009), set up the bank transfer to your employee's main bank. Enter bank key *12312312* for Citibank and the bank account number (any number).
 - a) *Create Bank Details (infotype 0009)*: Enter the following data:
Bank key: 12312312 for Citibank
Bank account: any number
Payment method: U (Bank transfer)
9. On the *Create Absence Quotas* screen (infotype 2006), enter a realistic value for the number of days of standard annual leave.
 - a) *Create Absence Quotas (infotype 2006)*
Standard leave: 25 days
Deduction from: Hire date
Deduction to: End of March next year
Save the data and return to the **SAP Easy Access Menu**.

Task 2:

You are to find solutions for the following task:

1. Review your new employee's personnel file (personnel number *110991##*).
What infotypes exist for the employee that you did not create?
 - a) In the **SAP Menu**, choose *Human Resources → Personnel Management → Administration → HR Master Data → Personnel File*.
Enter **personnel number 110991##**.
Choose **Display**.
Choose **Next Record** to display the individual infotypes.
The **Payroll Status** (0003) and **Additional Actions** (0302) infotypes are available, although you did not create them previously.
Exit and return to the **SAP standard menu**.



Lesson Summary

You should now be able to:

- List the prerequisites for Payroll
- Specify the activities required when setting up Payroll
- Describe how payroll data is entered in the R/3 System for an employee



Unit Summary

You should now be able to:

- List the prerequisites for Payroll
- Specify the activities required when setting up Payroll
- Describe how payroll data is entered in the R/3 System for an employee

Unit 2



Organizing a Live Payroll Run



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

This unit illustrates the significance of payroll areas and control records.
It also explains the Payroll Status infotype.



Unit Objectives

After completing this unit, you will be able to:

- Describe the organization and monitoring of a payroll run

Unit Contents

Lesson: Organizing a Live Payroll Run	18
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Lesson: Organizing a Live Payroll Run



Lesson Duration: 75 Minutes

Lesson Overview

- Payroll areas and payroll periods
- Payroll control record
- Payroll status in the employee master data
- Retroactive accounting limits – scenarios



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the organization and monitoring of a payroll run



For more information, see the Instructor Guide in SAPNet.

Business Example

- Payroll runs can be carried out at different times (for example, at the beginning of the month) and with different frequencies (for example, monthly).
- Payroll consists of different phases which take place one after the other.
- Payroll is controlled using payroll areas and payroll control records.

Payroll Organization

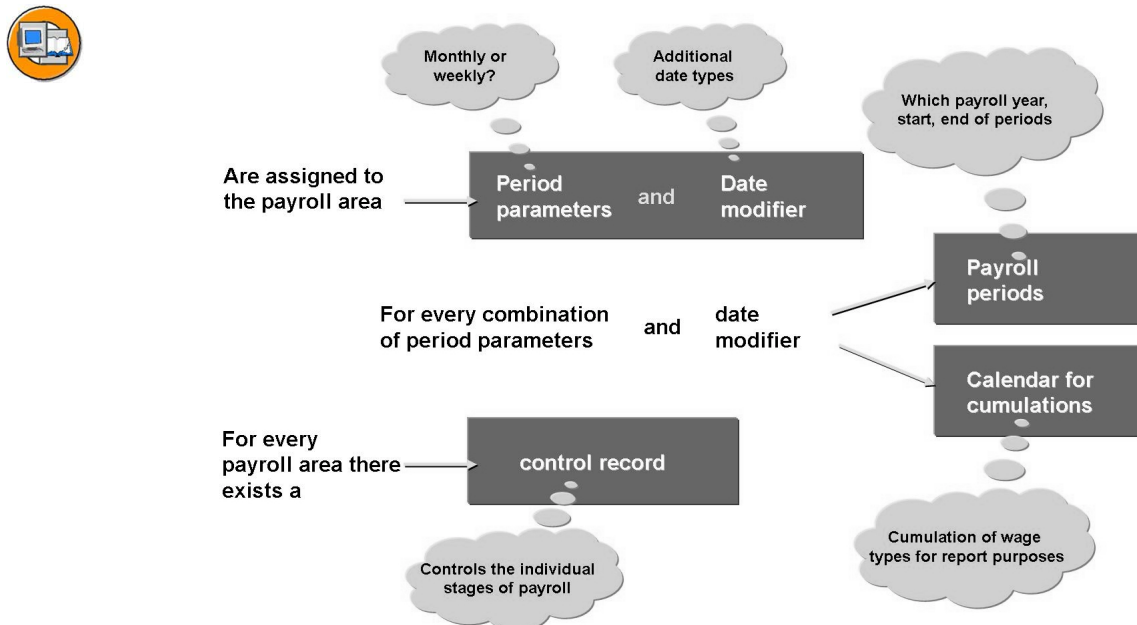


Figure 7: Overview - Payroll Organization

You must make some basic settings in Customizing to be able to run payroll in the SAP System.

- A **period parameter** and a **date modifier** is assigned to each **payroll area**. The period parameter determines whether payroll is run monthly, bi-monthly, weekly or for several weeks. Each period parameter used is assigned to a time unit. The values for the time units are defined (monthly, semi-monthly, weekly, bi-weekly, every four weeks, and annually.)
- **Payroll periods** must be generated for each combination of period parameters and date modifiers assigned to a payroll area. All periods within the specified time interval are defined based on the period parameter. The start date and end date for each period is defined and the payday is calculated using a rule entered as a parameter. The payroll year and period define the exact dates for the payroll period
- You must create a **control record** for every payroll area. This control record controls the individual stages of payroll.

Payroll area

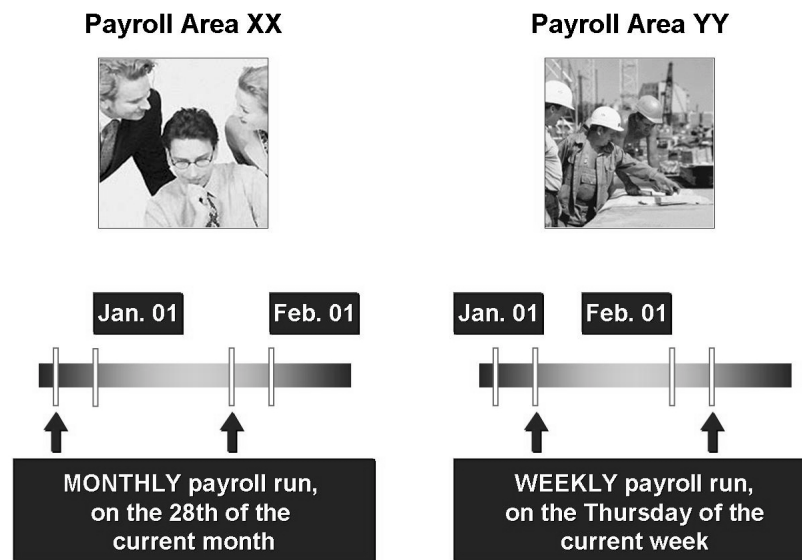


Figure 8: Payroll Areas

The SAP HR System uses payroll areas to group together employees for whom payroll is run at the same time, and also to set the dates for the payroll period. Employees from different employee subgroups can belong to the same payroll area.

For example, an organization may pay employees on a monthly and weekly basis so at least one monthly and one weekly payroll area must be created. You must also create payroll areas if you want to run payroll for employees at different times.

The payroll area is used as a selection criterion for many payroll processes. For example, for the payroll run, the remuneration statement, and evaluation reports for the payroll run.

If you want to select fewer employees for a payroll run or other evaluations, you can also use additional selection criteria, for example, the cost center, or employee subgroup. (However, such a selection is only suitable for test and simulation purposes, as the payroll control record is not taken into account).

The ABKRS feature delivers a default value for the *Payroll Area* field in the *Organizational Assignment* infotype (0001).

Payroll Periods

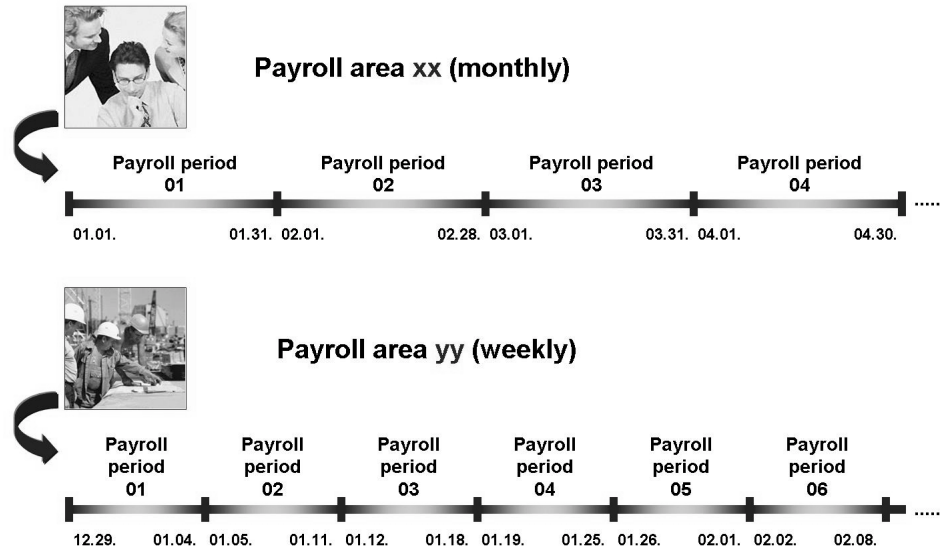


Figure 9: Payroll Periods

A **payroll period** determines the period for which a payroll result is created. The length of payroll periods can differ, for example, a payroll period can be a month, a week, or fourteen days.

The exact start date and end date of the periods must be defined for the **payroll areas**.

Payroll Control Record

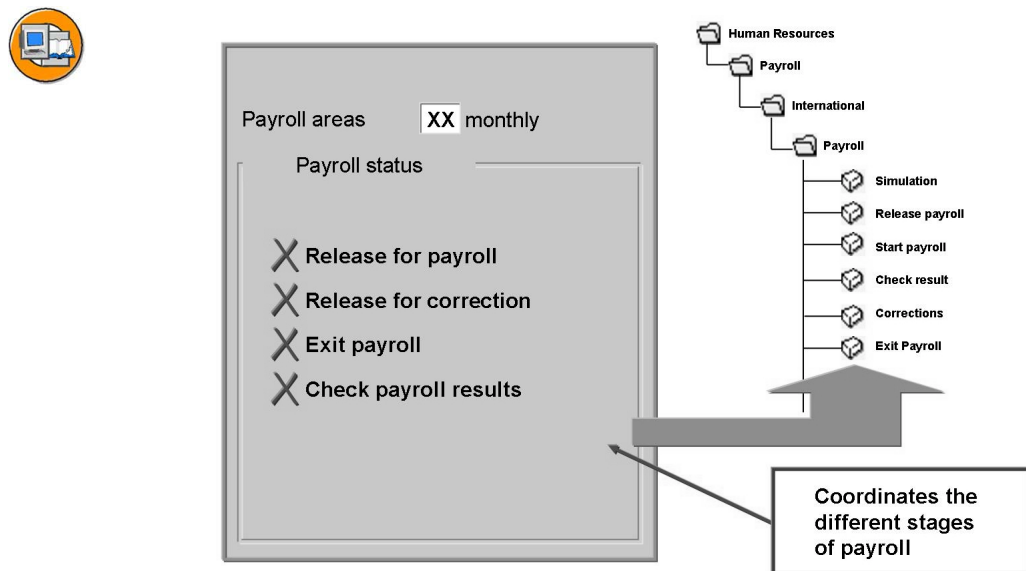


Figure 10: Payroll Control Record: Status

You must create a control record in Customizing for each payroll area before it can be used.

The **personnel control record** performs the following functions in payroll:

- Defines the payroll past for retroactive accounting recognition.
- Locks master data and time data so no changes can be made during the payroll process. The lock is valid for the payroll past and the payroll present. Changes affecting future payroll runs are still possible.
- Defines the earliest possible retroactive accounting date for each payroll area.

You find the control record in the payroll menu for your country under *Tools* → *Control Record*. You can also use the payroll menu for your country to control the different stages of payroll.



Figure 11: Payroll Control Record: Periods

You must pay particular attention when creating the payroll control record in your live system. The payroll period used to create the payroll control records must be one period before the period in which you want to go live.

- Example: You want to use the SAP Payroll system to go live in period 05, 2001. You must enter period 04, 2001 in the payroll control record.

Payroll Status Infotype



Figure 12: Payroll Status Infotype (System)

Each employee has an individual payroll status. The necessary data is stored in the Payroll Status infotype (0003). This infotype is created automatically as part of the Hiring action and is automatically maintained for each payroll period. You will rarely need to make changes to master data. Occasionally, however, you may need to enter employee-specific information relating to Payroll or Time Management, so it is possible to change particular fields in the Payroll Status infotype manually.

- The payroll driver enters the end date of the last completed payroll period in the *Accounted to* field.
- If master data is changed, the system enters the appropriate date in the *Earliest MD Change* field. This date is deleted after each completed payroll run.
- The *Earliest MD Change Bonus* field (Earliest Master Data Change Bonus) is filled with a date when master data is edited, and this date is deleted during bonus accounting and unauthorized manual checks (NAMC, only for the USA). In this way the payroll system can perform retroactive accounting optimally in connection with bonus accounting. This field is used in a similar way to the *Earliest MD Change* field (Earliest Master Data Change).
- The payroll driver flags the *Payroll Correction* field if a personnel number has been rejected, or you have entered data during the correction phase of the payroll run. The employee is entered in the correction run with this indicator and if payroll is subsequently completed successfully, the indicator is removed. If changes are made in Customizing, the *Payroll Correction* indicator is not set. (For example, a pay scale table change).

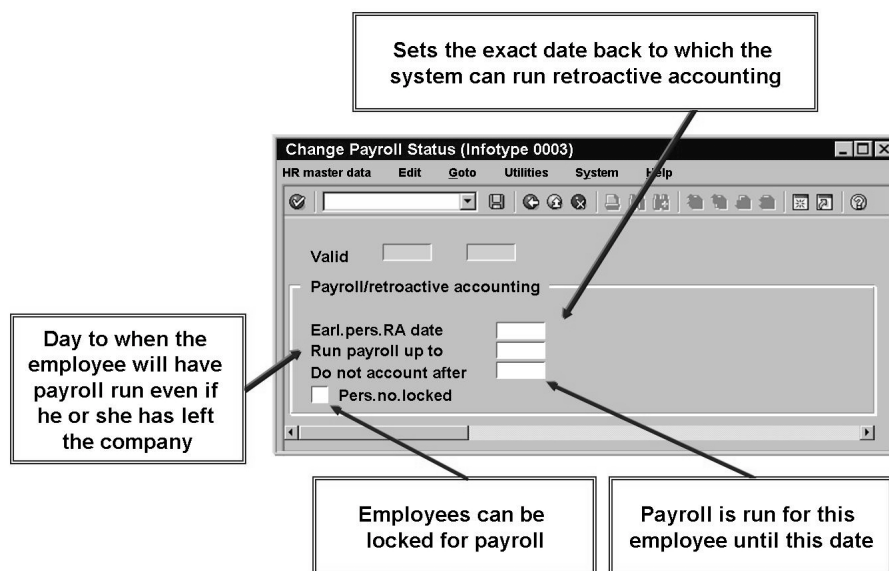


Figure 13: Payroll Status Infotype (Changed Manually)

Earliest personal retroactive accounting date: This field is only used if you want to set a retroactive accounting limit for an employee that is different from the date set in the payroll area.

Accounted to: Day up to which payroll is run for an employee, even if the employee leaves the company. The date must lie in an interval in which the employee is not actively employed. For example, if an employee has left the company and should still continue to be paid after the leaving date. If you are dealing with payments during a time when the employee is actively employed, you do not have to enter a date in this field. This is because such payments are triggered automatically during retroactive accounting.

Do not account after: You can enter a date after which payroll will no longer be performed for an employee. The subsequent day must lie in a non-active period.

Personnel number locked: If this field is flagged, an employee can be locked for payroll. In this case the personnel number will not be selected for payroll.

Retroactive Accounting Limits

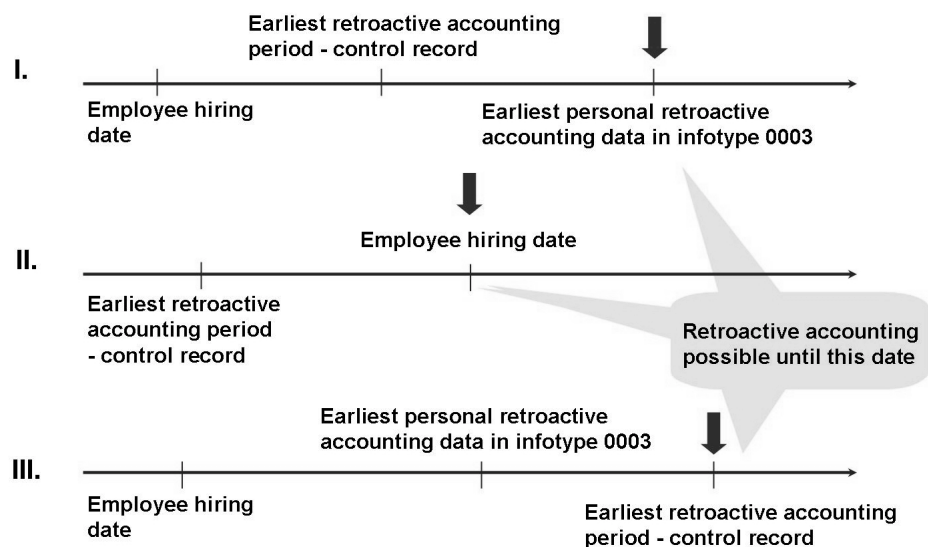


Figure 14: Retroactive Accounting Limits (3 Scenarios)

The retroactive accounting limit determines the exact date until which master data and time data can be changed in the payroll past. The retroactive accounting limit is based on the following values:

- Per payroll area (payroll control record): Earliest possible retroactive accounting period
- Employee hiring date
- Per employee (Payroll Status infotype): Earliest personal retroactive accounting date

If the date set for each payroll area differs from the date specified for the employee, the later date is used.

The absolute retroactive accounting limit for an employee is the hire date.

Summary



- Payroll runs are performed using the payroll area to which the employees are assigned who are remunerated at the same time.
- A payroll control record must be created for every payroll area. This control record controls the individual stages of payroll.
- The payroll control record and the payroll status infotype are relevant for retroactive accounting.



Exercise 2: Organizing a Live Payroll Run

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Display a control record for your payroll area
- Assign payroll areas
- Call up the **Payroll Status** infotype

Business Example

Your company wants you to check the payroll area assignments for some employees. You also want to display the control record for your payroll area and the *Payroll Status* infotype for one employee.

Task:

You are to find solutions for the following tasks:

1. Display the control record for your payroll area 60 + ##. What is entered in the *Payroll Period* and *Earliest Retroactive Accounting Period* fields?

Which period will have payroll run for it first?

Return to the SAP Easy Access Menu.

2. Check whether the following two personnel numbers are assigned to the payroll area 60 + ##:

110991## and 110992##

Return to the SAP Easy Access Menu.

3. For employee 110991##, display the Payroll Status infotype. What is entered in the following fields?:

Earl.pers.RA date:

Accounted to:

Continued on next page

Use the F1 Help to find out what the fields *Accounted to* and *Earl.pers RA date mean*.

Make sure that the Personnel No. Locked field is NOT activated. Leave the infotype without saving your entries.

Solution 2: Organizing a Live Payroll Run

Task:

You are to find solutions for the following tasks:

1. Display the control record for your payroll area 60 + ##. What is entered in the *Payroll Period* and *Earliest Retroactive Accounting Period* fields?

Which period will have payroll run for it first?

Return to the SAP Easy Access Menu.

- a) Display the control record for your payroll area 60 + ##. What is entered in the *Payroll Period* and *Earliest Retroactive Accounting Period* fields?

Choose *Human Resources* → *Payroll* → *International* → *Tools*.
Choose the **Control Record** activity.

Enter payroll area **60 + ##**.

Choose **Maintain**.

The following values are displayed:

- **Payroll period: 12 of the previous year**
- **Earliest retroactive accounting period: 12 of the previous year**

Which period will have payroll run for it first?

Period 1 of the current year (since the period is increased by one when it is released for the first time).

Return to the SAP Easy Access Menu.

Click on the button **Back**

2. Check whether the following two personnel numbers are assigned to the payroll area 60 + ##:

110991## and 110992##

Continued on next page

Return to the SAP Easy Access Menu.

- a) Check whether the following two personnel numbers are assigned to the payroll area 60 + ##:

110991## and 110992##

SAP Menu: Human Resources → Personnel Management → Administration → HR Master Data → Maintain

In the *Organizational Assignment* infotype, check whether the value is assigned for payroll area 60 + ## as of the date when your employee 110991## was hired.

Save the infotype.

Do the same for the employee with personnel number 110992##.

Return to the SAP Easy Access Menu.

3. For employee 110991##, display the Payroll Status infotype. What is entered in the following fields?:

Earl.pers.RA date:

Accounted to:

Use the F1 Help to find out what the fields *Accounted to* and *Earl.pers RA date mean*.

Make sure that the Personnel No. Locked field is NOT activated. Leave the infotype without saving your entries.

- a) For employee 110991##, display the Payroll Status infotype. What is entered in the following fields?:

Earl.pers.RA date: **No entry (→ earliest retroactive accounting date is determined according to the control record or hiring date)**

Accounted to: **No entry since no payroll run has been carried out**

Use the F1 Help to find out what the fields *Accounted to* and *Earl.pers RA date mean*.

Position your cursor on the appropriate field and press F1

Make sure that the *Personnel No. Locked* field is NOT activated. Leave the infotype without saving your entries.



Lesson Summary

You should now be able to:

- Describe the organization and monitoring of a payroll run



Unit Summary

You should now be able to:

- Describe the organization and monitoring of a payroll run

Unit 3



Payroll Process



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

This unit illustrates the Payroll process.

It also points out problems that may arise during Payroll.



Unit Objectives

After completing this unit, you will be able to:

- Start payroll
- Check the payroll log
- Correct the payroll results
- Exit payroll

Unit Contents

Lesson: Payroll Process	34
Exercise 3: Payroll Process	45

Lesson: Payroll Process



Lesson Duration: 70 Minutes

Lesson Overview

- Payroll processes
- Payroll simulation
- Payroll log
- Checking and correcting the payroll results



Lesson Objectives

After completing this lesson, you will be able to:

- Start payroll
- Check the payroll log
- Correct the payroll results
- Exit payroll



For more information, see the Instructor Guide in SAPNet.

Business Example

- In the following units you first learn about payroll and the subsequent activities in online mode before you take a closer look at the process model as a method of background processing.
- It is often the case that errors occur during a payroll run – as a result of data inconsistencies, for example. These errors can be identified using the payroll log. This allows you to make corrections immediately and the payroll run can be completed.

Overview of Payroll Process

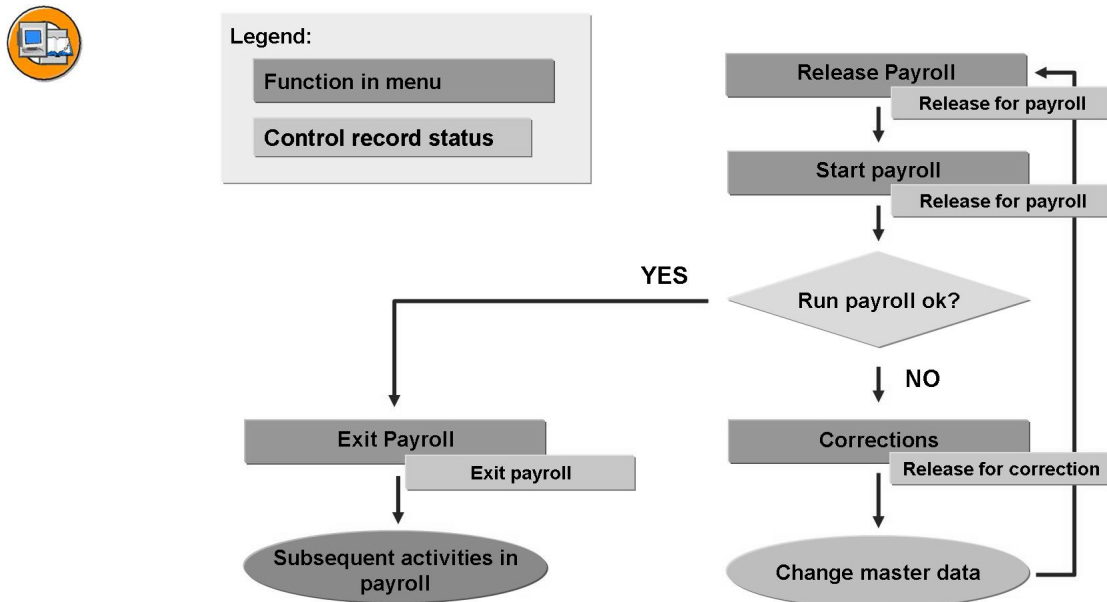


Figure 15: Overview of Payroll Process

During the payroll run, master data and time data changes that affect the payroll past and payroll present are not permitted. The payroll program reads the master data and time data infotypes, which means that changes effected during the payroll run could jeopardize the accuracy of the payroll results. It also means that you must not run payroll during master data maintenance. This is controlled by the payroll control record.

The relationship between the menu and payroll control record is as follows:

Function in menu	Status of payroll control record
Release Payroll	Release for payroll
Start Payroll	The payroll program is started and the status of the payroll control record is "released for payroll".
Check Result	Check payroll results
Corrections	Release for correction
Exit Payroll	Exit payroll

Simulating, Releasing, and Starting Payroll

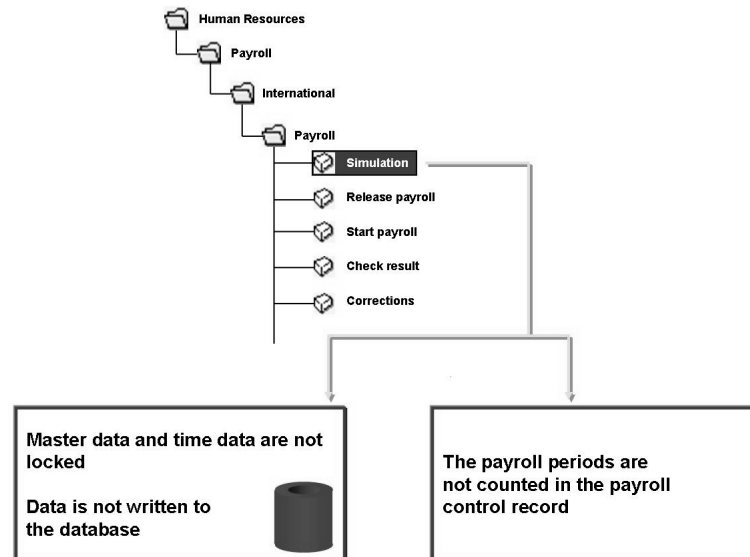


Figure 16: Payroll Simulation

When payroll periods are counted in the control record, simulation runs are ignored. Furthermore, simulation runs do not lock master data. You are not required to use the Release Payroll and Exit Payroll functions when simulating a payroll run. The results of a simulated payroll run are not written to the database. Instead, they are displayed in the payroll log.

Simulating a payroll run enables you to display and print the remuneration statement.

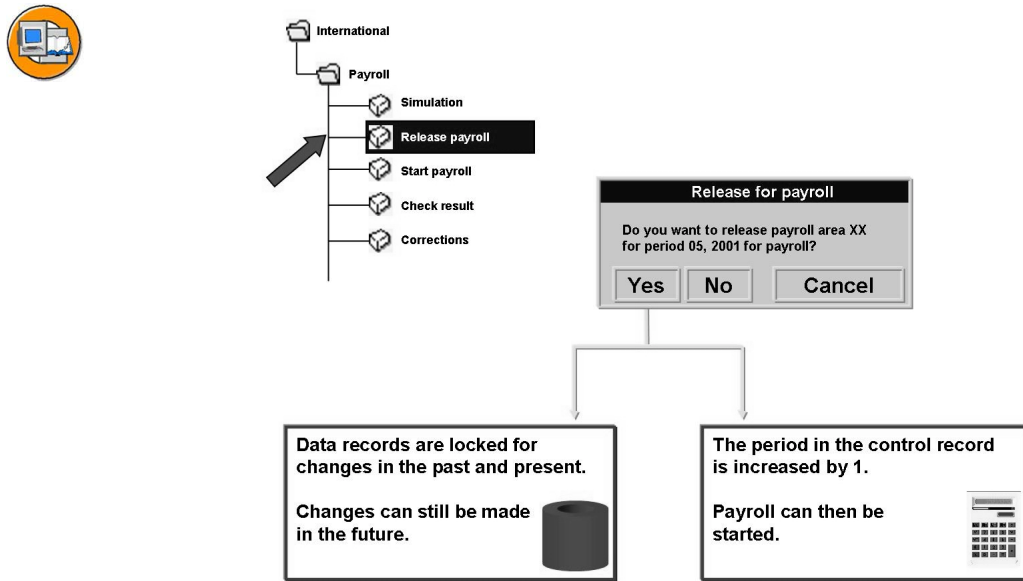


Figure 17: Release Payroll / Release for Payroll

If you choose the **Release Payroll** function from the menu, you are prevented from changing infotype data records if such changes affect the past or present. This lock applies to the personnel numbers included in the payroll area concerned. Changes that affect the future are still permitted. You must execute this function in the menu before starting the payroll. If the status of the payroll control record was previously *Exit Payroll*, the *Release Payroll* function also has the effect of increasing the period in the payroll control record by 1.

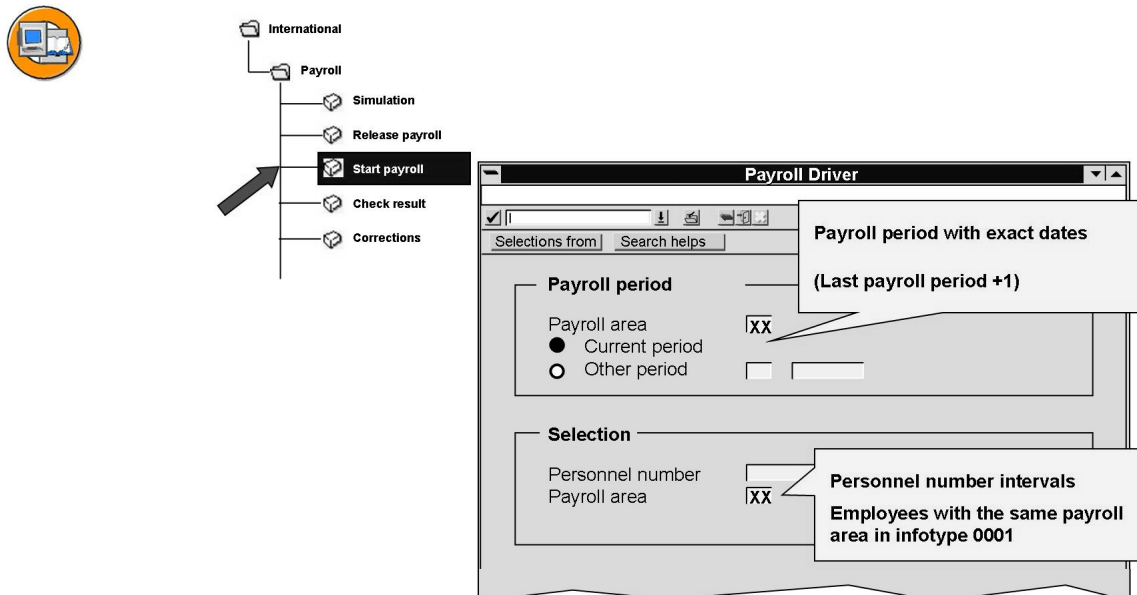


Figure 18: Start Payroll / Release for Payroll (Part 1)

The payroll area is used to determine the payroll period with exact dates as well as to select personnel numbers. For this reason you have to enter the payroll area in both the *Payroll Period* and *Selection* sections.

Prerequisite:

The personnel control record must be maintained.

Advantage:

When a live payroll is run, you are not required to enter the payroll period. Instead, the system uses the payroll area and the control record to determine the payroll period automatically.

Alternatively, you can enter a different payroll period (for a simulation run).



Figure 19: Start Payroll / Release for Payroll (Part 2)

You must make an entry in the “Forced retroactive accounting as of” field if a retroactive run is to be carried out that will not be automatically recognized by the system (for example, changes in Customizing tables).

The “payroll schema” describes the sequence and the contents of a program procedure. It consists of a list of statements and links to subschemas and functions, which are described in more detail using parameters. The program processes the specified personnel calculation schema step for step, that is, sequentially.

If the “test run” flag is set, no changes are made to the database. That is, the function UPD YES is overridden. This also affects the newly-generated schema. This flag must be set during a payroll simulation run. It must not be set during a regular payroll run.

Payroll Log

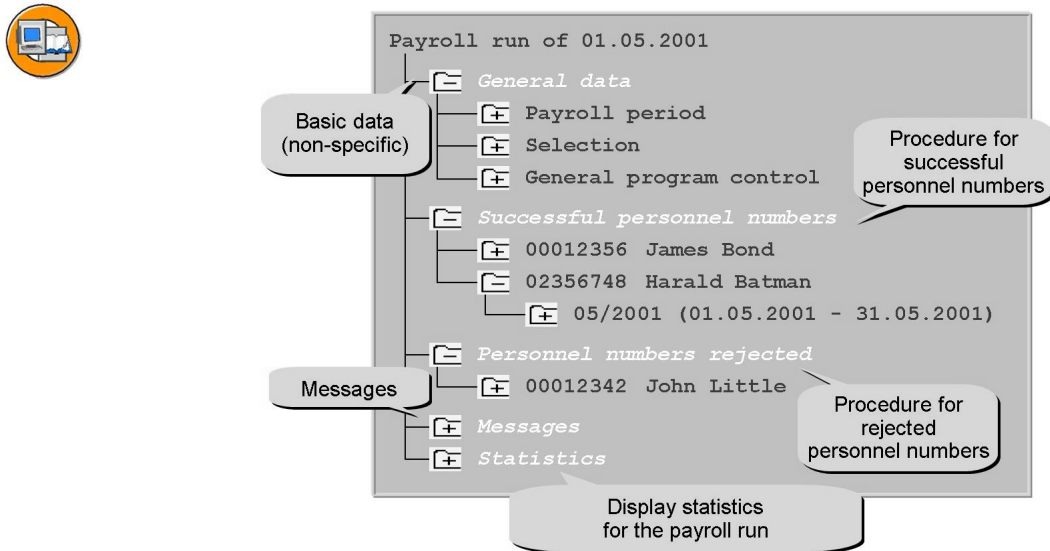


Figure 20: Payroll Log

The payroll results are displayed in a tree structure. This makes it easier for you to analyze and get an overview of the payroll results.

The log includes a table of contents, which is presented as a tree structure. The nodes within the tree structure enable you to access the detailed information that you require. The headers within the structure are designed to help you with troubleshooting and to facilitate navigation within the log. Depending on the information that you require, you either expand or collapse individual nodes within the tree structure as necessary.

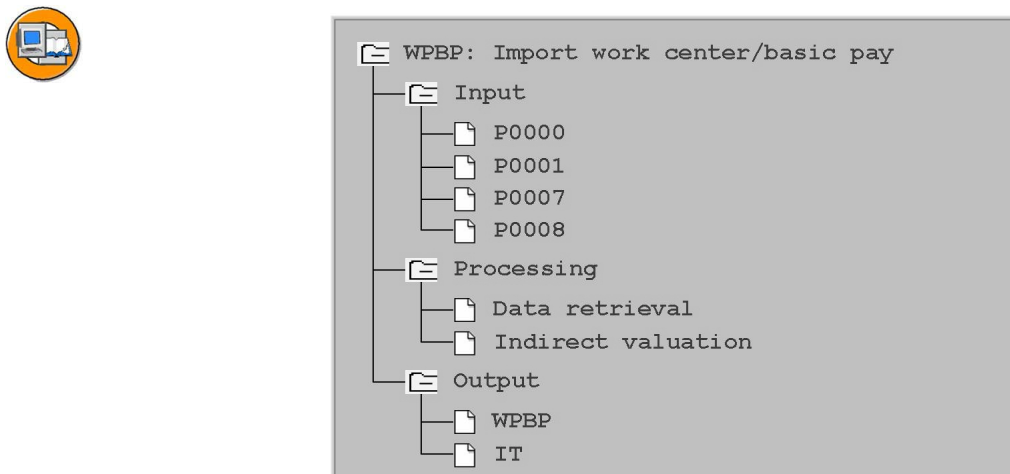


Figure 21: Detail View of a Processing Step

If you display a detail view of a processing step, you can choose within the log between the input data, data processing, and the output data.

You can save your own personnel settings for the log tree and list as a variant.

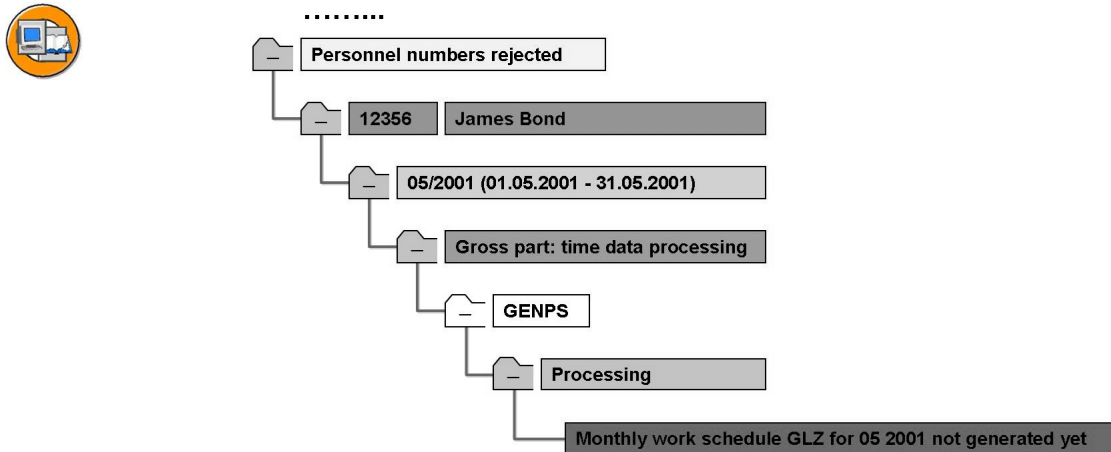


Figure 22: Personnel numbers rejected

If an error occurs when a personnel number is processed, the log is expanded at the appropriate place and an error message is displayed.

Matchcode W

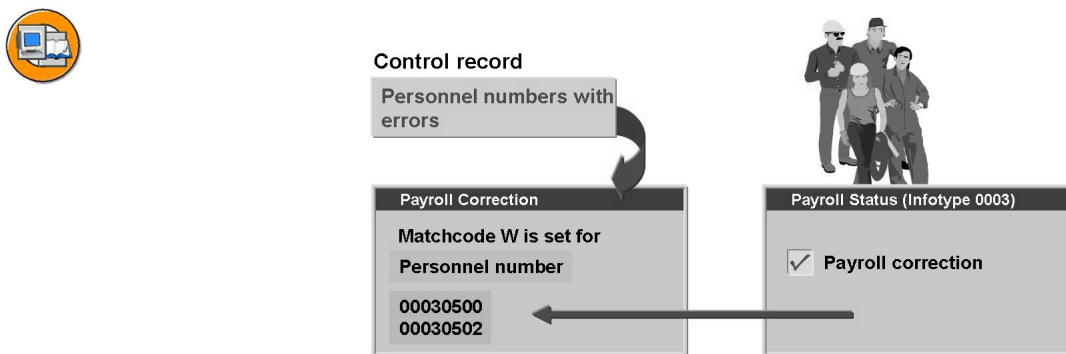


Figure 23: Matchcode W

Matchcode W provides a list of all personnel numbers in the selected payroll area that have been rejected by the payroll run because of incorrect data. This means that the payroll has not run for them successfully. Personnel numbers are also included in matchcode W if personnel data is changed in the correction phase of the payroll run.

To display matchcode W, proceed as follows:

- In the Payroll menu for your country, choose *Tools* → *Control Record*.
- Enter a payroll area and choose *Display*.
- Choose the menu path *Goto* → *Incorrect pers. nos.*
- A list is displayed of all personnel numbers assigned to the selected payroll area that have been rejected because of incorrect data.

Checking Results, Making Corrections, and Exiting Payroll

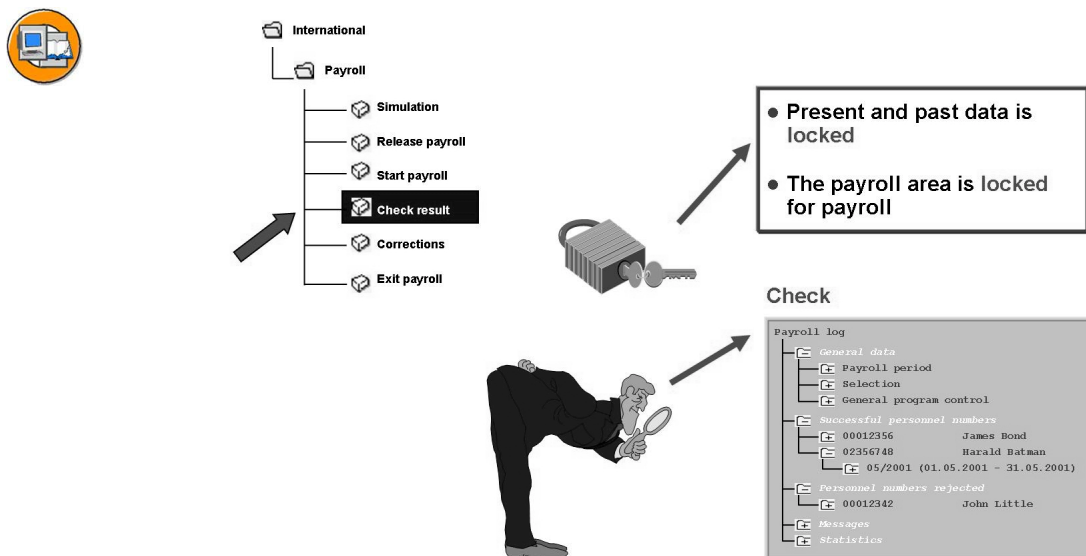


Figure 24: Check Result / Check Payroll Results

By choosing **Check Result**, you ensure that changes cannot be made to payroll data if they affect the present or past. This function also locks the payroll accounting area concerned to prevent you from including it in a payroll run, that is, you cannot start the payroll. “Freezing” the payroll in this way enables you to check the payroll results.

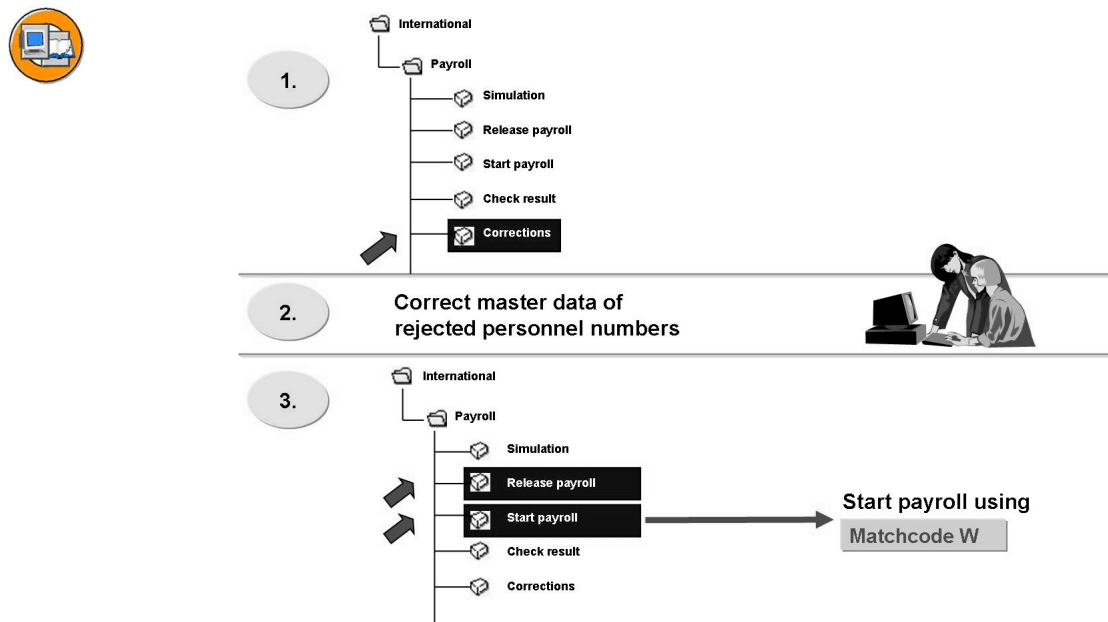


Figure 25: Corrections / Released for Correction

If you choose **Corrections** in the menu, you release the infotype records assigned to the selected payroll area for correction. You must choose this function if infotype data needs to be changed because personnel numbers were rejected during the payroll run. In the correction run you choose *Search Helps* and all of the personnel numbers requiring correction are displayed. You can perform up to 99 correction runs. If you need to know how many runs have been performed, see the *Run* field in the payroll control record.

After you have corrected the data, you must **release the payroll**. This causes the personnel records to be locked again; the last payroll period is not increased.

You then choose **Start Payroll** to run payroll again for all the personnel numbers included in matchcode W (that is, personnel numbers for which the master data was changed). Then choose search helps and choose W (Payroll correction run). The *Restrict Value Range* dialog box appears. To restrict the value range you can enter one single personnel number or an interval range of personnel numbers. The system only selects personnel numbers that lie within this range from Matchcode W. If you do not want to restrict the value range, the system selects all the personnel numbers from matchcode W to be included in the payroll.

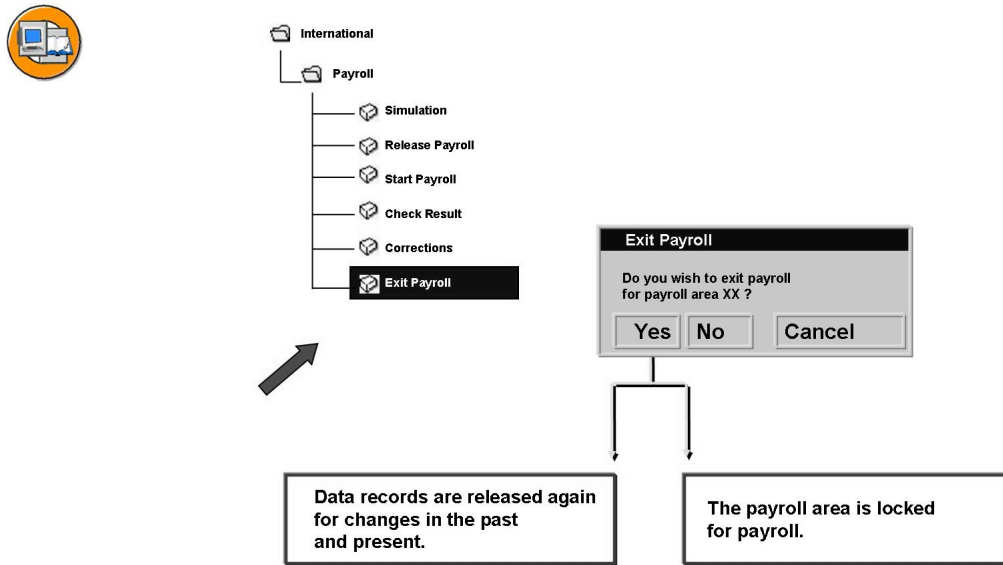


Figure 26: Exit Payroll

The **Exit Payroll** function enables you to re-release infotypes so that they can be maintained for the past and present, and the payroll area is locked for the start of the payroll run. You cannot exit payroll until the payroll has run successfully for all of the personnel numbers assigned to the selected payroll area (which means that matchcode W is empty). If you attempt to execute this function and rejected personnel numbers still exist, the system displays an error message.

After you have exited the payroll, you can only change data for the period in question by performing retroactive accounting in a subsequent payroll period.

Summary

- By releasing payroll you prevent changes to past and present data, however, not to future data.
- You can check the error messages in the payroll log tree structure. Matchcode W displays all personnel numbers that reported errors.
- You can correct the payroll results and carry out a correction run.
- You use a simulation run to check the results.
- You exit payroll when payroll has been performed without errors for all employees.



Exercise 3: Payroll Process

Exercise Duration: 25 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Run payroll for period 01

Business Example

As a member of the payroll department, you need to recognize and understand the various processes that occur during the payroll process. During a payroll run you have to release payroll, start payroll, check the payroll results and correct any errors that occur.

Task:

You are to find solutions for the following tasks:

1. Release payroll for the payroll area 60 + ## for the current period, that is, period 01.
2. Start payroll for payroll area 60 + ## for the current period. Choose *Schema X700* and the option *Display Log*. Before executing, save your own entries as a variant. Include your group number in the name.
3. Review the log and record your observations.
4. Release the payroll area for correction so that you can make the necessary changes to the master data.
5. Use Matchcode W to produce a list of all personnel numbers in the selected payroll area that have been rejected by the payroll run due to incorrect data.

The personnel numbers with errors are: _____

6. Access master data maintenance and correct the personnel numbers that contain errors as of the hire date. The work schedule rule should be NORM.

When making the corrections remember to check the capacity utilization level in the Basic Pay infotype. This should correspond to the employment percentage in the Planned Working Time infotype. The working hours per period should also be copied from the Planned Working Time infotype.

Continued on next page

7. Use Matchcode W to run payroll for the last employee that had incorrect data. Run payroll for the payroll area *60 + ##* with the schema *X700*. Set the flag to display the log.



Hint: Alternatively, you can use the variant you created in exercise 2.

After payroll has run successfully, return to the standard SAP menu.

8. Access the control record and look at the payroll status and the run.

Payroll status: _____

Run: _____

Solution 3: Payroll Process

Task:

You are to find solutions for the following tasks:

1. Release payroll for the payroll area 60 + ## for the current period, that is, period 01.
 - a) *SAP Menu: Human Resources → Payroll → International → Payroll → Release Payroll.*
Select **Yes** in the **Release for Payroll** dialog box.
2. Start payroll for payroll area 60 + ## for the current period. Choose *Schema X700* and the option *Display Log*. Before executing, save your own entries as a variant. Include your group number in the name.

- a) *SAP Menu: Human Resources → Payroll → International → Payroll → Start Payroll.*

Change the standard schema from X000 to **X700**. Enter payroll area 60 + ##, activate the current period, and select the **Display Log** indicator.

To save your entries as a variant for the payroll program:

- In the menu choose *Goto → Variants → Save as Variant*.
- Enter a variant name and a meaning (include your group number in the name)
- Choose **Save**.

In the selection screen, you can now start the payroll program using your variant by choosing the *Get Variant...* button.

Choose **Execute**.

3. Review the log and record your observations.
 - a) You should receive the following system message:

Rejected personnel number 110992##: No record available for infotype 0007 for the corresponding period.

Exit the *Display Log Tree* screen and return to the **SAP standard menu**.

Continued on next page

4. Release the payroll area for correction so that you can make the necessary changes to the master data.
 - a) In order to make the corrections for the employees, you must remove the lock that is set on the payroll area.
SAP Menu: Human Resources → Payroll → International → Payroll → Corrections.
Release the payroll area for corrections by selecting **Yes** to the **Corrections** dialog box.
5. Use Matchcode W to produce a list of all personnel numbers in the selected payroll area that have been rejected by the payroll run due to incorrect data.
The personnel numbers with errors are: _____
 - a) *SAP Menu: Human Resources → Payroll → International → Tools → Control Record*
Enter *Payroll area* **60 + ##**.
Choose **Display**.
Choose *Goto → Incorrect pers.nos.*
The incorrect personnel number is **110992##**.
Return to the **SAP standard menu**.
6. Access master data maintenance and correct the personnel numbers that contain errors as of the hire date. The work schedule rule should be NORM.

Continued on next page

When making the corrections remember to check the capacity utilization level in the Basic Pay infotype. This should correspond to the employment percentage in the Planned Working Time infotype. The working hours per period should also be copied from the Planned Working Time infotype.

- a) To correct the incorrect personnel numbers choose:

SAP Menu: Human Resources → Personnel Management → Administration → HR Master Data → Maintain

Create the **Planned Working Time** infotype (0007) for employee **110992##** with **work schedule rule NORM** as of the **hiring date**.

Note the system message: **Data entry for correction period for payroll area 60 + ##**.

Save the data and return to *HR Master Data → Maintain*.

Check the **Basic Pay** infotype (0008) for employee **110992##** as of the hiring date: The **Work Hours/Period** field should display **163.00**, and the **Employment Percentage** field should display **100%**.

Note the system message: **Data entry for correction period for payroll area 60 + ##**.

Save the data and return to the **SAP Standard Menu**.

7. Use Matchcode W to run payroll for the last employee that had incorrect data. Run payroll for the payroll area **60 + ##** with the schema **X700**. Set the flag to display the log.



Hint: Alternatively, you can use the variant you created in exercise 2.

Continued on next page

After payroll has run successfully, return to the standard SAP menu.

- a) Release payroll by selecting the menu path: *Human Resources → Payroll → International → Payroll → Release Payroll*.

Select **Yes** in the **Release for Payroll** dialog box.

Start payroll by selecting *Payroll → Start Payroll*.

Change the standard schema from X000 to **X700**.

The payroll area **60 + ##**, the **current period**, and the **Display log** indicator are set automatically.



Hint: Alternatively, you can use the variant you created in exercise 2. To do so, click on the button Get Variant and select your own variant.

Choose the button **Search Helps**. Select W (Payroll correction run) and choose **Copy**. The **Restrict Value Range** dialog box appears. Do not restrict the value range, choose **Continue**.

Choose **Execute**.

Payroll should now have run successfully for your two employees.

Return to the **SAP Standard Menu**.

8. Access the control record and look at the payroll status and the run.

Payroll status: _____

Run: _____

- a) *SAP Menu: Human Resources → Payroll → International → Tools → Control Record*

Enter your payroll area **60 + ##** and choose **Display**.

The payroll status is **Released for Payroll** and the run is **2**.



Lesson Summary

You should now be able to:

- Start payroll
- Check the payroll log
- Correct the payroll results
- Exit payroll



Unit Summary

You should now be able to:

- Start payroll
- Check the payroll log
- Correct the payroll results
- Exit payroll

Unit 4



Payroll Basics



This unit is designed to teach course participants the basic skills required to customize the payroll program in line with customer requirements. Participants are first taught the steps involved in payroll, the elements of periodical remuneration, and the wage type aspects relevant to payroll. This is followed by an explanation of the technical concept of payroll and the correlation between schemas/subschemas, functions, personnel calculation rules, operations, and customizing tables. The unit ends with an explanation and exercise on the tool used to process schemas.

Unit Overview

This unit provides an overview of payroll basics. The unit discusses the basic concepts of payroll such as remuneration structure, wage type concepts, and payroll processes. In addition, the unit discusses the SAP payroll concepts in detail, such as SAP schemas and functions and personnel calculation rules.



Unit Objectives

After completing this unit, you will be able to:

- Identify the elements of an employee's periodic remuneration
- Identify the need for wage types
- Describe the payroll process
- Identify the SAP payroll concepts
- Define SAP schemas

Unit Contents

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Lesson: Introduction to Payroll Concepts



54

Lesson Duration: 40 Minutes

Lesson Overview

The focus of this lesson is on understanding payroll concepts. The lesson will explain the elements of an employee's periodic remuneration. In addition, the lesson will also explain the role of wage types as an essential element of payroll. Finally, the lesson will describe the payroll process in detail.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the elements of an employee's periodic remuneration
- Identify the need for wage types
- Describe the payroll process



Steps in a Payroll Run

Explain the basic payroll procedure.

Remuneration Structure

Explain the different areas that generate the wage types used in gross pay. Mention the sickness and leave averages treated later in the course. Explain that overtime is either included in the remuneration statement or in the Overtime infotype by entering the exact times. However, also point out that the resulting time pairs only generate wage types if the wage type selection rule has been maintained.

Wage Type Information

Explain the wage type fields. For example, explain that the features determining the payroll procedure are linked to processing classes and cumulations.

Validity Period of Wage Type Characteristics

Wage Type Elements

Wage Type Coding

Explain that secondary wage types have a fixed meaning, and that the names must not be changed.

Business Example

Your company is implementing HR Payroll. As a member of the HR team, you need to understand the HR system for your company's specific payroll requirements.

Remuneration Structure

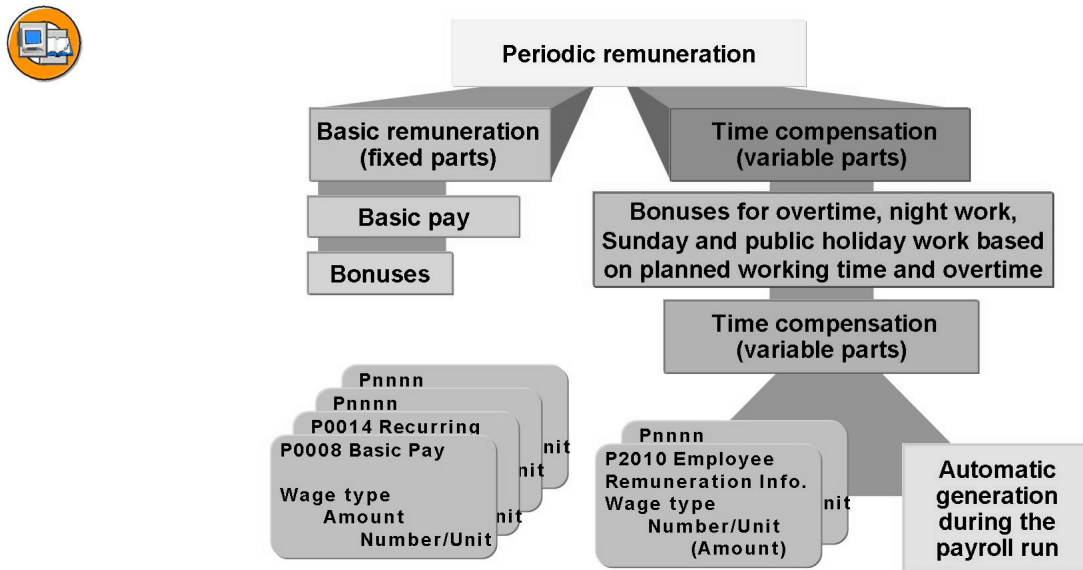


Figure 27: Remuneration Structure

The elements of an employee's periodic remuneration are either entered by the relevant department or created by the payroll program using specific prerequisites as a basis.

Wage Type Concepts

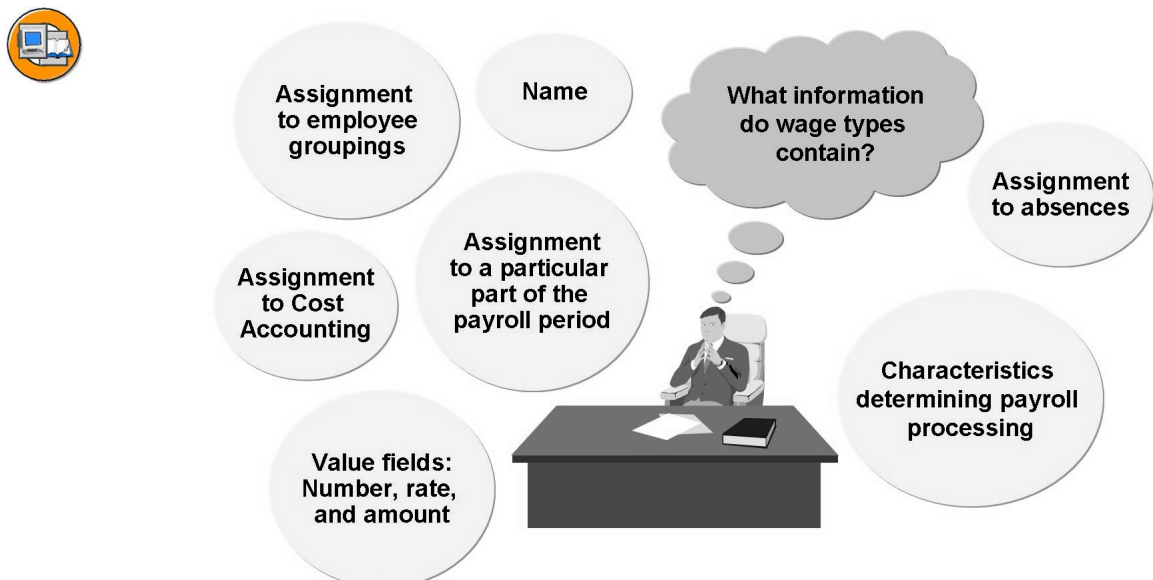


Figure 28: Wage Type Information

Wage types form an essential part of payroll. A wage type consists of several fields containing diverse information.



Work center basic pay	Amount per unit RATE	Number NUMBER	Amount AMOUNT	Examples:
WPBP-Split	RTE	NUM	AMT	
01	15.00			- Hourly wage
01	20.00	3	60.00	- Time wage type:
				- Salary
01			4,500.00	Partial period 01
02			5,000.00	Partial period 02

Figure 29: Wage Type Elements

Each wage type is assigned to a **work center/basic pay period**. If, for example, an employee's pay changes within a payroll period, then the period is split into partial periods, and the wage types are assigned to these partial periods.

Each wage type contains three **value fields**: **RTE**, **NUM**, and **AMT**.

The **RTE** field specifies, for example, the hourly rate used for hourly wage types.

The **NUM** field specifies three hours overtime, for example. To determine the time wage type amount, the system multiplies the number by the rate, and stores the result in the **AMT** field. The rate for time wage types is calculated according to the conditions defined in customizing.

With basic pay wage types, such as salary, the amount is stored in the **AMT** field.

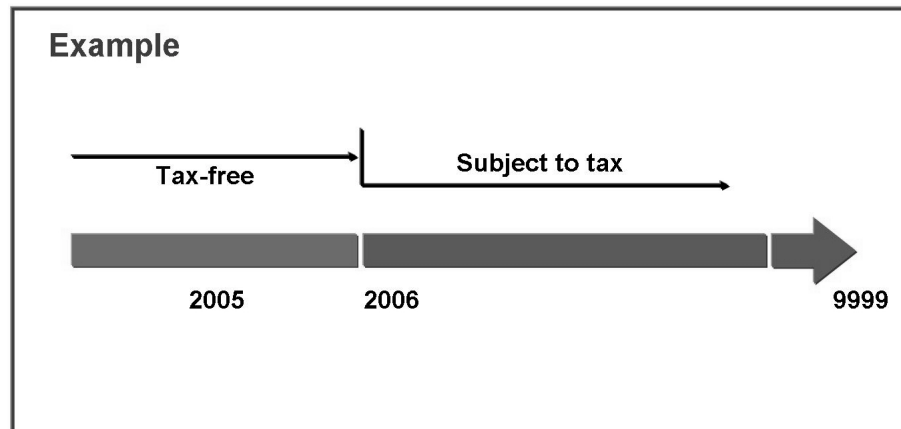


Figure 30: Validity Period of Wage Type Characteristics

Each wage type contains a sequence of time-dependent characteristics that determine how the wage type is treated during the payroll run. The characteristics enable you to control how wage types are processed during payroll.

If wage type characteristics change, it does not suffice to simply change the corresponding table entries. Instead, the validity periods of existing entries must be delimited, and new entries need to be created with the characteristics required in the future.

If you have changed the wage type characteristics for a period for which payroll has already been run, existing payroll results must be corrected. As the system does not automatically recognize such changes, you must ensure that retroactive accounting is run.



- There are two types of wage types:
 - Primary wage types
 - Secondary wage types
- Primary wage types are:
 - Dialog wage types
 - Time wage types
 - Others: Absences
- Secondary wage types are:
 - Valuation bases /0..
 - Cumulation of gross amount /1..
 - Bases for calculating average value /2..
 - Factoring / CO /8..
 - Outgoing wage types in retroactive period /A..
 - Incoming wage types from previous period /Z..
 - Others: TG Withholding /3.., TX Withholding /4..

Primary wage types are either entered into the system directly by the user (for example, dialog wage types for basic pay) or generated by the system based on time data (for example, time wage types for overtime).

Secondary wage types are created by the payroll program during the payroll run. For example, all amounts to be paid are cumulated into the secondary wage type Total Gross (/101) during the run. SAP delivers secondary wage types identified by a name starting with /.

You can create customer wage types in the above name range. Note that many secondary wage types have a fixed meaning and that you must therefore not change the name.

Payroll Processes



- Read basic data.
- Read payroll accounts from the payroll period last accounted.
- Time data processing
 - Read time data.
 - Generate time wage types.
 - Valuate time wage types.
- Import additional payments/deductions.
- Factoring
 - Reduce basic pay.
 - Determine wage types for FI/CO.
- Statutory payments/deductions.
- Net payments/deductions.
- Determine payment amount.

The customer largely defines the first phase of processing.

The second phase involves statutory payments and deductions. This phase rarely requires customer adjustments.



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Exercise 4: Hiring an Employee

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Use the SAP system to hire an employee

Business Example

As an HR personnel, you need to use the SAP system to hire an employee. For this, you need to enter the organizational-related details of the employee.

Task 1:

1. Your employee starts work in your company on January 01 of the current year.

Execute the personnel action **Hiring Payroll** by entering the following data in the respective infotypes.

Personnel number: 400991## (## = group number)

Start: 01.01.Current year

Personnel area: CABB

Employee grouping: 1

Employee subgroup: X0

Infotype *Organizational Assignment*:

Personnel subarea: 0001

Sales Payroll area: X1 to X9 for groups 01 - 09, Y0 to Y9 for groups 10 – 19, Z0 to Z9 for groups 20 – 29, and ZA for group 30.

Position: Default



Note: Cancel the position assignment

Infotype *Personal Data*: Complete the required fields with data of your choice.

Infotype *Address*: Complete the required fields with data of your choice.

Infotype *Planned Working Time*:

Work schedule rule: FLEX

Continued on next page

Time Management status: 0

Infotype *Basic pay*:

Pay scale type: 90

Pay scale area: 50

Pay scale group: E04

Wage type: M020

Amount: Determined from indirect valuation.

Infotype *Bank Details*:

Payment method: U

Infotype *Absence Quotas*:

Type: 09

Number: 30

Valid from: 01.01.Current year

Valid to: 12.31.Current year

Start of deduction: 01.01.Current year

End of deduction: 03.31.Following year

Task 2:

1. Release payroll for period 01 for your payroll area, start payroll for your new employee, and look at the results table in the log.

Solution 4: Hiring an Employee

Task 1:

1. Your employee starts work in your company on January 01 of the current year.

Execute the personnel action **Hiring Payroll** by entering the following data in the respective infotypes.

Personnel number: 400991## (## = group number)

Start: 01.01.Current year

Personnel area: CABB

Employee grouping: 1

Employee subgroup: X0

Infotype *Organizational Assignment*:

Personnel subarea: 0001

Sales Payroll area: X1 to X9 for groups 01 - 09, Y0 to Y9 for groups 10 – 19, Z0 to Z9 for groups 20 – 29, and ZA for group 30.

Position: Default



Note: Cancel the position assignment

Infotype *Personal Data*: Complete the required fields with data of your choice.

Infotype *Address*: Complete the required fields with data of your choice.

Infotype *Planned Working Time*:

Work schedule rule: FLEX

Time Management status: 0

Infotype *Basic pay*:

Pay scale type: 90

Pay scale area: 50

Pay scale group: E04

Wage type: M020

Amount: Determined from indirect valuation.

Infotype *Bank Details*:

Continued on next page

Payment method: U

Infotype *Absence Quotas*:

Type: 09

Number: 30

Valid from: 01.01.Current year

Valid to: 12.31.Current year

Start of deduction: 01.01.Current year

End of deduction: 03.31.Following year

- a) Execute the personnel action **Hiring Payroll**: *SAP Menu: Human Resources → Personnel Management → Administration → HR Master Data → Personnel Actions*

In the hiring action, enter the data for the personnel area, employee group, and employee subgroup, and choose *Execute*. Confirm the data in the *Personnel Actions* infotype (0000) and save your entries.

Enter data for the *Organizational Assignment* infotype (0001). When you save the infotype, the *Position Assignment* window will appear. Select *Cancel Assignment* to exit this window. Enter the data for the individual infotypes as specified in the exercise. Make sure you save each infotype after entering the required data.

Task 2:

1. Release payroll for period 01 for your payroll area, start payroll for your new employee, and look at the results table in the log.

- a) Run payroll for your new employee:

SAP Menu: Human Resources → Payroll → International → Payroll → Release Payroll

Enter your payroll area X0-X9, Y0-Y9, Z0-Z9, or ZA (assigned to your group number). Confirm the message that you are releasing payroll for period 01 for your payroll area.

SAP Menu: Human Resources → Payroll → International → Payroll → Start Payroll

Ensure that the *Display Log* field is activated, and run payroll.

Review your results in the log.

Do not exit payroll.



Lesson Summary

You should now be able to:

- Identify the elements of an employee's periodic remuneration
- Identify the need for wage types
- Describe the payroll process

Lesson: SAP Payroll Concepts



Lesson Duration: 35 Minutes

Lesson Overview

This lesson focuses on SAP payroll concepts. This lesson defines payroll control. It describes in detail the various payroll schemas. In addition, this lesson also describes the different functions and the personnel calculation rules.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the SAP payroll concepts
- Define SAP schemas



The SAP Payroll Concept

Explain that the processing logic of the payroll driver does not use a predefined processing sequence as in conventional codes. In other words, the processing logic is not an inherent part of the program, but is entered when the program is executed. The logic lies in a schema, which calls up subroutines or function modules directly or with fine-tuned control using the operations or operation modules available in personnel calculation rules. The customer also modifies the payroll program by maintaining tables in Implementation Guide (IMG) views.

Business Example

You are a part of the HR team. To be able to adapt payroll to meet your company's requirements, you must familiarize yourself with the technical concepts of SAP payroll.

Introduction to SAP Payroll

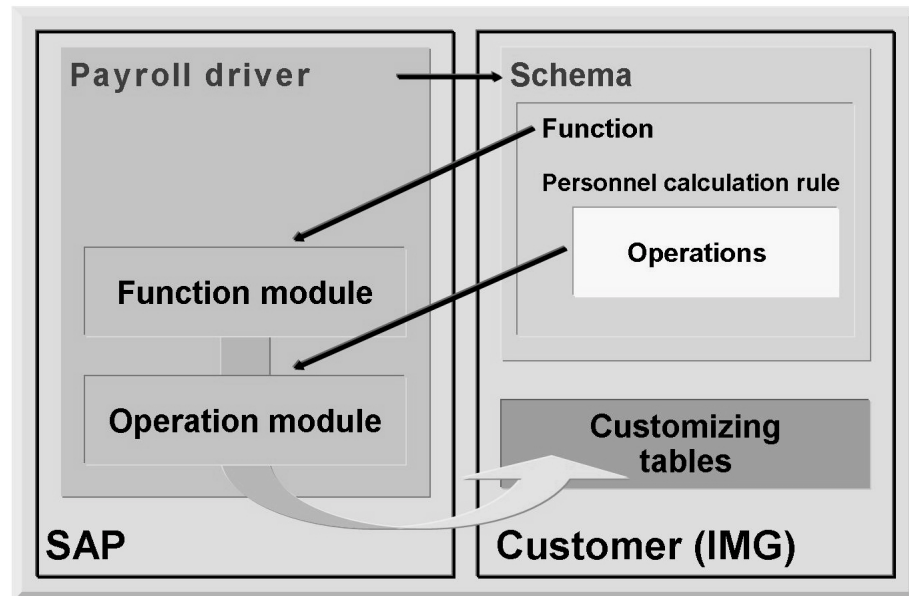


Figure 31: The SAP Payroll Concept

A customer-defined schema and the functions included in that schema affect flow control in the payroll driver. A function calls the function module assigned to it in the payroll driver. Certain functions also call personnel calculation rules containing operations that are linked to operation modules in the payroll driver.

During the payroll run, function and operation modules access entries stored in the customizing tables.

SAP Schemas



- Payroll schema: INTERNATIONAL Gross wage calculation and transfer:
- XIN0 - Initialization of payroll
- XBD0 - Edit basic data
- XLR0 - Import last payroll result
- XT00 - Gross remuneration (Time Management)
- XAP9 - Import additional payments/deductions
- XAL9 - Partial period factoring and storage
- XNA9 - Cumulate net amount/form payment amount
- XRR0 - Retroactive Accounting
- XNN0 - Net payments/deductions and transfer
- XEND - Final processing

To run the payroll program, you require a payroll driver and a payroll schema. The payroll schema defines the processes carried out by the payroll driver and ensures that the program gathers all the data required to run the payroll for an employee in a specified period.

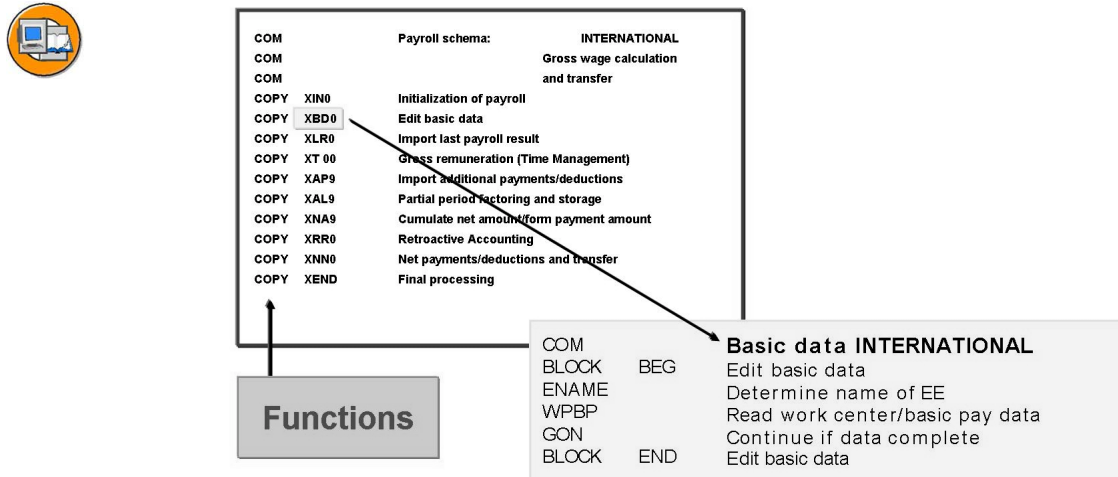


Figure 32: Main Schema and Subschemas

A main schema consists of a sequence of subschemas that are included in the main schema using the **COPY** function. The main schema is generated and subsequently executed by the payroll driver.

Subschemas can be edited separately in customizing, yet they are not executable unless incorporated into a main schema.

A schema consists of a sequence of **functions**. Functions retrieve and process the data required for the respective processing step.

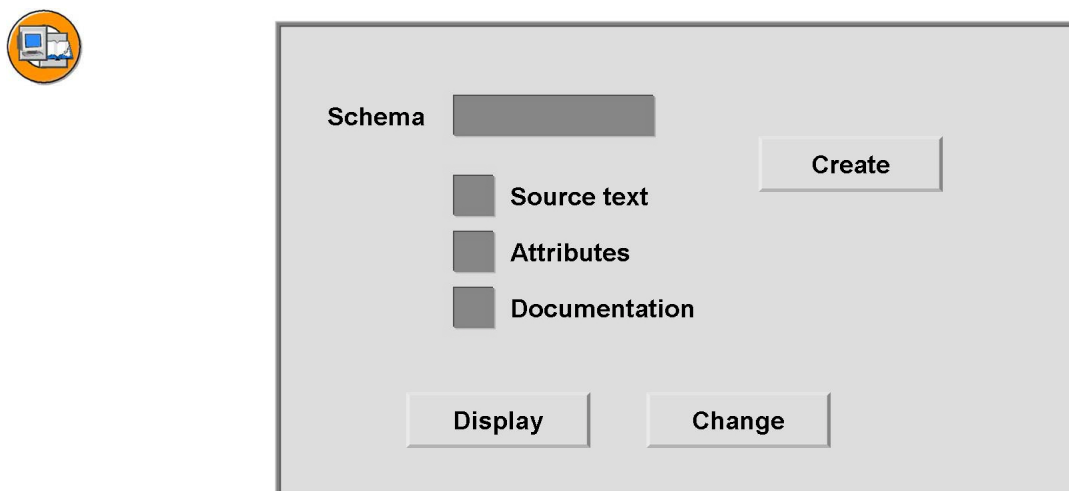


Figure 33: Maintaining Schemas

The schema editor (transaction PE01) enables you to display and maintain schemas.

When displaying a source text, you can choose between **tables** and **structural graphics**.

The personnel calculation schema editor enables you to carry out the following activities:

- Display and print schema directory
- Compare source text from schemas
- Copy schemas
- Change schema elements
- Create schemas
- Check the syntax of source text in schemas
- Generate modified or new source text
- Transport schemas to another client
- Navigate within and between schema elements
- Navigate between schemas
- Access personnel calculation rules



Attributes			
Program class	C Payroll T Time Management		
Country grouping	*, 01, 02, ... 99		
<input checked="" type="checkbox"/>	Executable schema		
Person responsible			
<input checked="" type="checkbox"/>	Changes by person responsible only		
Administrative data			
Created on	—	on _	at _
Last changed by	—	on _	at _
Version	—		

Figure 34: Schema Attributes

Attributes store administrative data on schemas.

The program class determines how the schema is used (C = Payroll, T = Time Management).

The HR country grouping defines the country versions for which the schema is valid.

If you flag **Changes by person responsible only**, the schema elements (source text, attributes, and documentation) can only be changed by the person responsible for them.

The schema attributes can also be changed using the program **RPUCTF00**.

You do not require special authorization to generate a schema.

A person other than the person responsible can also execute a schema. Each function checks the authorizations set up in HR.

Schemas, subschemas and their rules can also be expanded/exploded for easier viewing using program **RPDASC00**.



The screenshot shows the SAP Schema Editor interface. It features a table with columns labeled 'Fct', 'Par1', 'Par2', 'Par3', 'Par4', 'D', and 'Text'. The table contains several rows of data, with the first column showing line numbers (000010, 000020, 000030, 000040, 000050). Numbered callouts point to specific areas: 1 points to the top command line area; 2 points to the line number column; 3 points to the function column; 4 points to the parameter columns (Par1-Par4); 5 points to the 'D' (execute) column; and 6 points to the text column.

Figure 35: The Schema Editor

In areas **1** and **2** of the editor, you can use the standard SAP commands.

Area **3** of the editor specifies the schema's functions. The four parameters in area **4** provide more exact definitions of the functions.

Placing an **asterisk** in area **5** deactivates the relevant function.

You can enter a description of each function in area **6**.



Standard schema in standard client

- Cross-client

Schema X000		
COM	Payroll schema:	INTERNATIONAL
COM		Gross wage calculation and transfer
COPY XIN0		Initialization of payroll
COPY XBD0		Edit basic data
IF SPRN		Special run?
RFRSH IT		Delete IT for: Special run?
ENDIF		Import previous result current period
COPY XPR0		Import last payroll result
COPY XLR0		Gross remuneration (Time Management)
COPY XT00		Import additional payments/deductions
COPY XAP9		Partial period factoring and storage
COPY XAL9		...
...		

Customer schema in customer client

- Client-specific

Schema X000		
COM	Payroll schema:	INTERNATIONAL
COM		Gross wage calculation and transfer
COPY XIN0		Initialization of payroll
COPY XBD0		Edit basic data
COPY XLR0		Import last payroll result
COPY XT00		Gross remuneration (Time Management)
COPY XAP9		Import additional payments/deductions
COPY XAL9		Partial period factoring and storage
COPY XNA9		Cumulate net amount/form payment amount
COPY XRR0		Retroactive Accounting
COPY XNN0		Net payments/deductions and transfer
COPY XEND		Final processing



- Comparison possible

- Adjustment possible

Figure 36: Standard Schemas and Customer Schemas

Schemas are subdivided into SAP standard schemas and customer schemas. Standard schemas and customer schemas are not differentiated by namespaces, but by whether they are located in the standard clients or not. There are only standard schemas in the standard client. This means that every schema in the standard client - irrespective of the name - is a standard schema.

Standard schemas and customer schemas are stored in different tables. Standard schemas are **cross-client**, whereas customer schemas are **client-specific**.

A standard schema is visible across the system in a customer client until you change this schema or replace it with a new one. As soon as you change a standard schema in a customer client, the changed schema is stored as a customer schema. This also applies when the name of the schema has not been changed.

This ensures that all standard schemas are unaffected by any changes that you make to the schemas. Changes can be made only for customer schemas.

You can change the standard schemas during any new release for the standard system. This does not affect your customer schemas. However, it is important to check and store the changes so that you can, if necessary, add them to your changed schemas.

You can compare and adjust the schemas in the Editor: *Schema* → *Compare*.



Demonstration: Displaying Schema X000

Purpose

To show the schema X000

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Show schema X000 (not graphically, this form of display will be dealt with later on), access subschema XBD0, and show documentation on function WPBP.

Functions and Personnel Calculation Rules

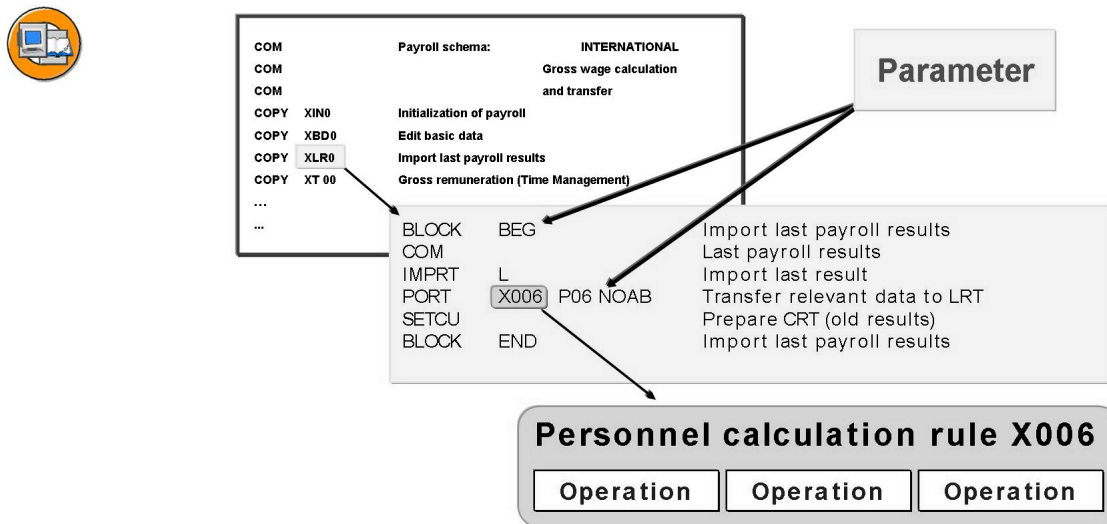


Figure 37: Functions and Personnel Calculation Rules

A payroll schema consists of a sequence of **functions**. Functions retrieve and process the data required for the respective processing steps.

Certain functions call a **personnel calculation rule**. The relevant calculation rule processes the data previously retrieved by functions. A personnel calculation rule consists of separate operations and always processes logical units.

Personnel calculation rules, therefore, fine-tune the processes carried out by functions.

- Functions that import infotype data:
 - **WPBP** Work center and basic pay data
 - **RAB** Absences
 - **P0015** Additional payments
 - **P2010** EE remuneration information
- Functions that process data according to the entries in customizing tables:
 - **PAB** Absence valuation
- Functions that edit wage types using personnel calculation rules:
 - **PIT** Process input table

You can display documentation on a function by pressing F1.

Functions within a schema are processed sequentially.

Data processing for employee wage types takes place in internal payroll tables. To process such data, certain functions access an assigned personnel calculation rule that can be adjusted if necessary.



Demonstration: Using schema attributes, schema editor, and standard and customer schemas

Purpose

To demonstrate the use of schema attributes, schema editor, and standard and customer schemas

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Call up the schema editor using the menu path (*Human Resources* → *Payroll* → *International* → *Tools* → *Maintenance tools* → *Schema*). Copy schema X000, and rename it Z000. Show the schema documentation. Go to *Help* → *Extended Help*, call up the documentation on editor functions, and encourage the participants to use the online documentation during the course.
2. Outline the attributes of schema Z000 and lock it against changes. Advise participants to do this for their schema also.

3. Outline the individual areas of the editor. Explain and demonstrate F1 in the command line, and possible entries. To demonstrate the effectiveness of CHECK, build in a syntax error. To obtain information on the function, explain, and demonstrate F1 in the field line numbers.
 4. Copy a standard schema and modify it. Then select *Schema* → *Compare* in order to compare it with the original schema.
 5. Call up the table display, and double click on subschema personnel calculation rule X006. Only show the rule, do not go into details of operation. Use the example of schema XT00 to show that users can also process subschemas in the editor.
-



Exercise 5: Schema Editor, Main Schema, and Subschemas

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Create customer-specific main schema and subschemas

Business Example

To adjust payroll to meet your company's requirements, you must modify the payroll schema. To do this, you copy and rename the original payroll schemas and make the changes required.

Task:

1. Make a copy of subschema XT00, and rename it **ZT##**. Finally, make a copy of the international payroll schema X000, and rename it **Z0##**.

(## = Group number).

Solution 5: Schema Editor, Main Schema, and Subschemas

Task:

1. Make a copy of subschema XT00, and rename it **ZT##**. Finally, make a copy of the international payroll schema X000, and rename it **Z0##**.

(## = Group number).

- a) To copy subschema XT00 and schema X000:

*SAP Menu: Human Resources → Payroll → International → Tools
→ Customizing Tools → Schema*

Select *Copy*, enter the following data, and choose *Enter*.

from schema	XT00
to schema	ZT##

Select *Copy* again, enter the following data and choose *Enter*.

from schema	X000
to schema	Z0##



Lesson Summary

You should now be able to:

- Identify the SAP payroll concepts
- Define SAP schemas



Unit Summary

You should now be able to:

- Identify the elements of an employee's periodic remuneration
- Identify the need for wage types
- Describe the payroll process
- Identify the SAP payroll concepts
- Define SAP schemas



Test Your Knowledge

1. The secondary wage type, Incoming wage types from previous period, is identified by a name starting with which of these strings?

Choose the correct answer(s).

- ☐ A /3..
- ☐ B /4..
- ☐ C /Z..
- ☐ D /0..

2. Schemas are subdivided into SAP Standard schemas and _____.

Fill in the blanks to complete the sentence.

3. Certain functions call a personnel calculation rule to fine-tune the processes carried out by these functions.

Determine whether this statement is true or false.

- ☐ True
- ☐ False



Answers

1. The secondary wage type, Incoming wage types from previous period, is identified by a name starting with which of these strings?

Answer: C

Incoming wage types from previous period is identified by the string /Z.

2. Schemas are subdivided into SAP Standard schemas and Customer schemas.

Answer: Customer schemas

3. Certain functions call a personnel calculation rule to fine-tune the processes carried out by these functions.

Answer: True

Certain functions call a personnel calculation rule to fine-tune the processes carried out by these functions. The relevant calculation rule processes the data previously retrieved by functions.

Unit 5



Personnel Calculation Rules



This is a key unit in the overall context of the course, because it teaches participants about the configuration of personnel calculation rules. When customers modify payroll, they must frequently make changes to calculation rules and, if necessary, write their own rules and access these from their own schema. In the past, participants have experienced difficulties dealing with the creation and application of rules, because they did not understand the context. For this reason, you must cover this unit thoroughly, and make sure that the majority of participants understand the material so that they can perform the subsequent exercises on processing rules.

Unit Overview

This unit provides an overview of personnel calculation rules with the help of several examples. The unit covers the internal payroll tables and function PIT and the methods of rule access. Finally, the unit discusses the maintenance of personnel calculation rules by defining the attributes used for personnel calculation rules and displaying rules as structural graphics.



Unit Objectives

After completing this unit, you will be able to:

- Describe different employee subgroup groupings
- Identify different personnel calculation rules
- Define internal payroll tables
- Define the methods for rule access
- Identify the attributes of personnel calculation rules
- Display rules as structural graphics

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Lesson: Introduction to Personnel Calculation Rules



78

Lesson Duration: 40 Minutes

Lesson Overview

This lesson describes the different personnel calculation rules with examples. In addition, the lesson describes the different employee subgroup groupings.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe different employee subgroup groupings
- Identify different personnel calculation rules



Start the session by emphasizing the need for differential processing for different types of employees. Then, discuss how personnel calculation rules can be used for processing different operations.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to use personnel calculation rules to calculate wages for different types of employees.

Employee Subgroup Grouping

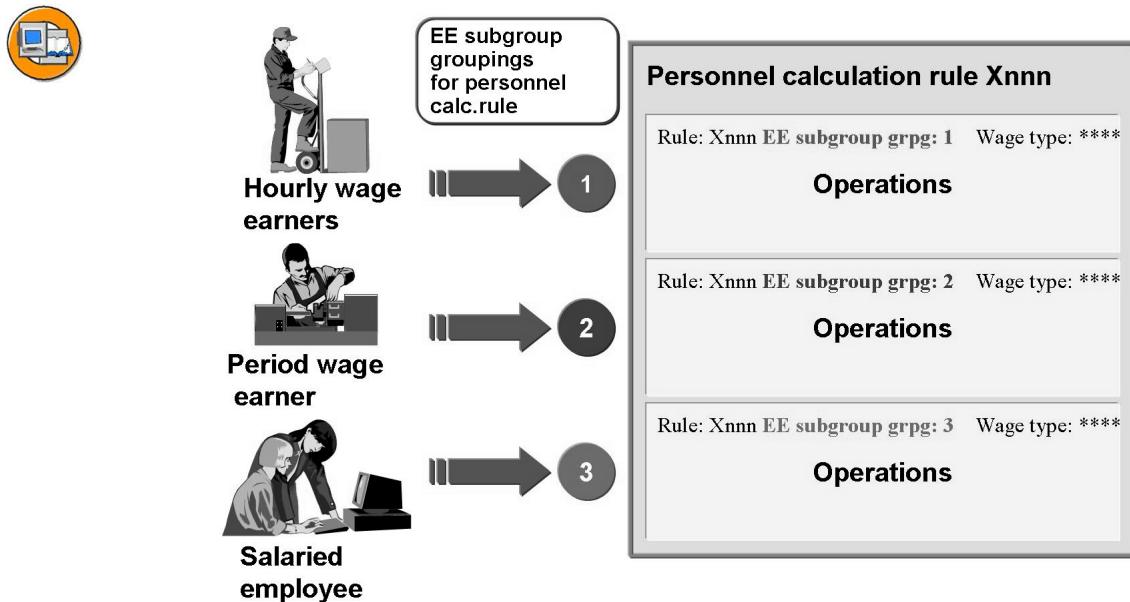


Figure 38: Employee Subgroup Groupings

Personnel calculation rules for wage types are usually configured to perform various processes. For example, wage types for hourly wage earners are processed differently as compared to wage types for monthly wage earners or salaried employees.

To facilitate differential processing, each employee subgroup must be assigned to a grouping for a personnel calculation rule. Each grouping is defined by SAP and, in this case, can have its own area depending on the personnel calculation rule.

Examples of Personnel Calculation Rules

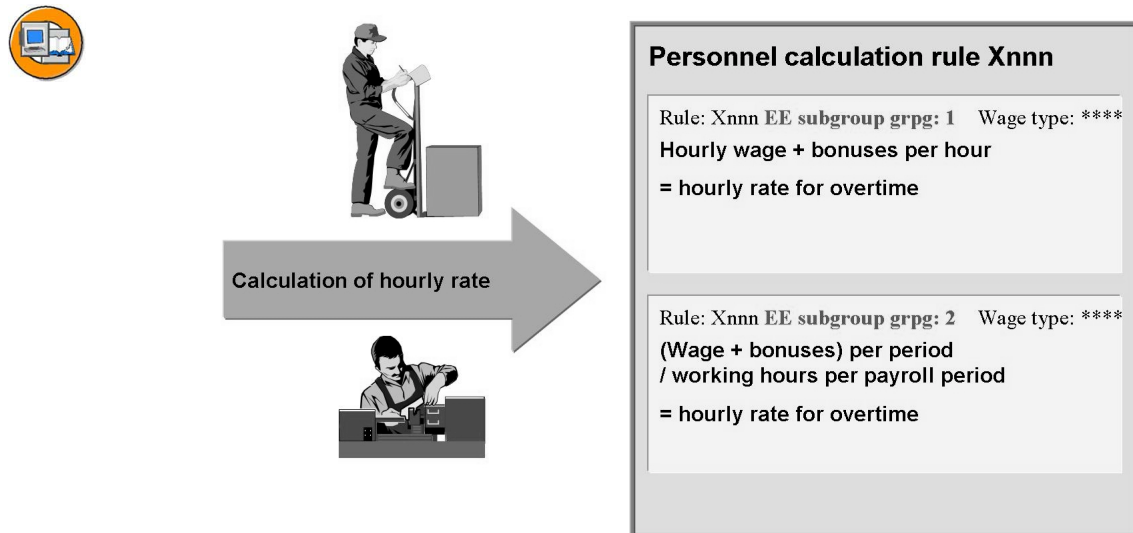


Figure 39: Personnel Calculation Rules: Example 1

The hourly rate for overtime is subject to different methods of calculation (valuation basis) depending on whether the employee is a period wage earner, a salaried employee, or an hourly wage earner.

For employees with periodic remuneration, the hourly rate is calculated by dividing the remuneration elements by the number of working hours per period specified in the *Basic Pay* infotype.

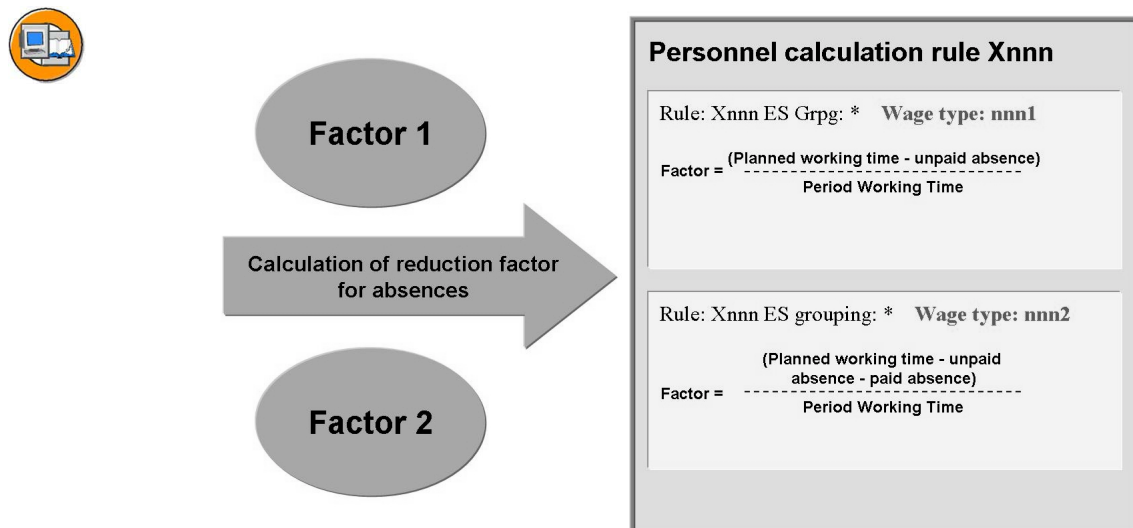


Figure 40: Personnel Calculation Rules: Example 2

Reduction factors are stored in diverse wage types and are used in payroll to calculate the reduction in pay for absences. A personnel calculation rule can contain several calculation formulas depending on the definition and use of the rule. Each formula is accessed for the relevant wage type.

The factors stored in the wage types are used to reduce periodic remuneration for unpaid absences, for example.



Demonstration: Employee Subgroup Grouping and Personnel Calculation Rules

Purpose

To group employee subgroups in a rule

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. To show to the participants that various areas for the groupings of employee subgroups can exist within a rule, call up rule X010 in the table display and then choose *Rule* → *Print* in the print view. This clearly shows that there are usually various areas. At this point, do not go into the operations.
 2. Mention that the addition of deductions takes place in this rule, and division takes place in rule X013.
 3. Display table XPPF as an example for a rule with areas for various wage types.
-



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Discuss the need for personnel calculation rules.



Lesson Summary

You should now be able to:

- Describe different employee subgroup groupings
- Identify different personnel calculation rules

Lesson: Internal Payroll Tables and Function PIT



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Lesson Duration: 40 Minutes

Lesson Overview

In this lesson, you will learn about the relationship between the internal payroll tables and function PIT. You will also learn how to define internal payroll tables and the various methods for rule access.



Lesson Objectives

After completing this lesson, you will be able to:

- Define internal payroll tables
- Define the methods for rule access



Start the lesson by introducing rule access variants. Next, explain that personnel calculation rules are necessary to process wage types in the internal tables. You should particularly emphasize that the IT is sequential, which means that it should be read from top to bottom, for example by the function PIT. The wage type that is to be processed is displayed in the header of the OT. This is where the operation of a personnel calculation rule is processed. A fully processed wage type can be stored in the RT.

Rule Access Using Groupings

Call X015 in subschema XT00, but do not go to the rule.

Generic Rule Access

Call X070 in subschema XEND.

Rule Access Using Processing Classes

Do not show anything regarding the processing classes, but mention to the participants that they may be maintained through the IMG, and that they remain available while the payroll driver is running.

Rule Access Using Wage Types

Note that with this type of access, if you omit a processing step for a wage type, it is not possible to terminate processing. In the case of other types of access, if no rule is found, the payroll driver terminates processing.

Rule Access Variants

Explain the six variants together and mention that the four most-used variants are discussed in the course.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to use the internal payroll tables to implement differential wage processing.

Introduction to Payroll Tables

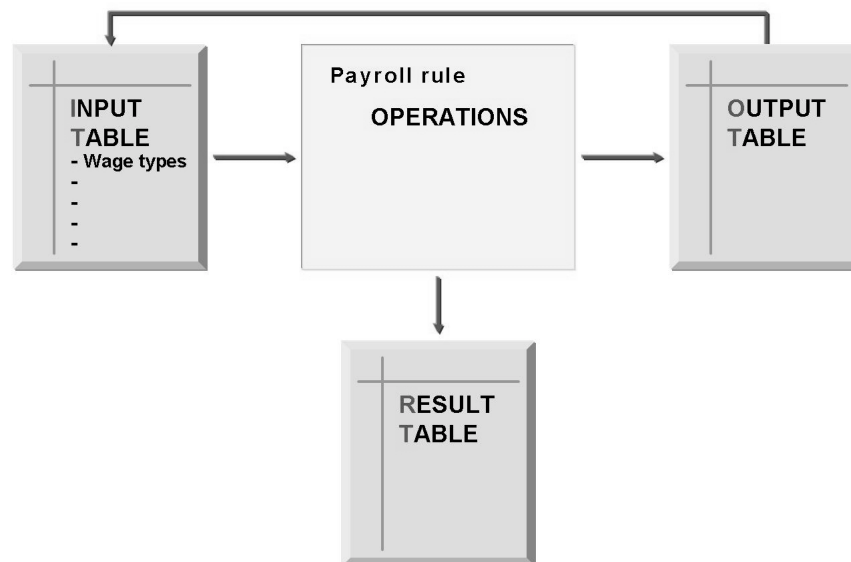


Figure 41: Interaction Between the Most Important Internal Payroll Tables with Function PIT

Internal table IT contains the wage types required for the relevant processing step.

The results of a processing step are stored in either of the internal tables, OT or RT.

Upon completion of a processing step, the wage types are transferred from the internal table OT to the internal table IT.

Internal tables IT and OT are filled temporarily and only exist during the payroll run, whereas the internal table RT is stored on the database.

Methods for Rule Access

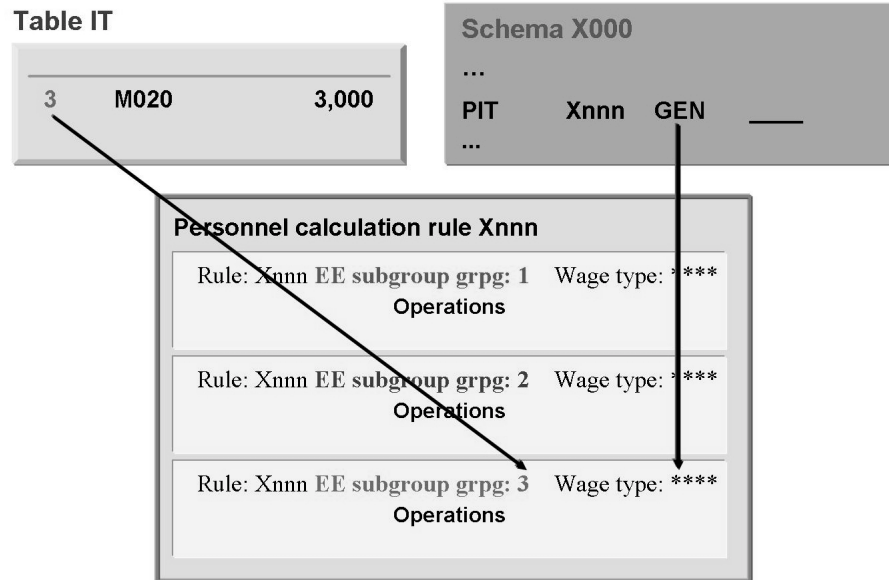


Figure 42: Rule Access Using Groupings

The function **PIT (Process Input Table)** processes each wage type stored in the internal table IT **generically** by accessing the personnel calculation rule defined in the first parameter through the employee subgroup grouping for personnel calculation rules.

Example:

The rule access is used in subschema **XT00** to access personnel calculation rule **X015**.

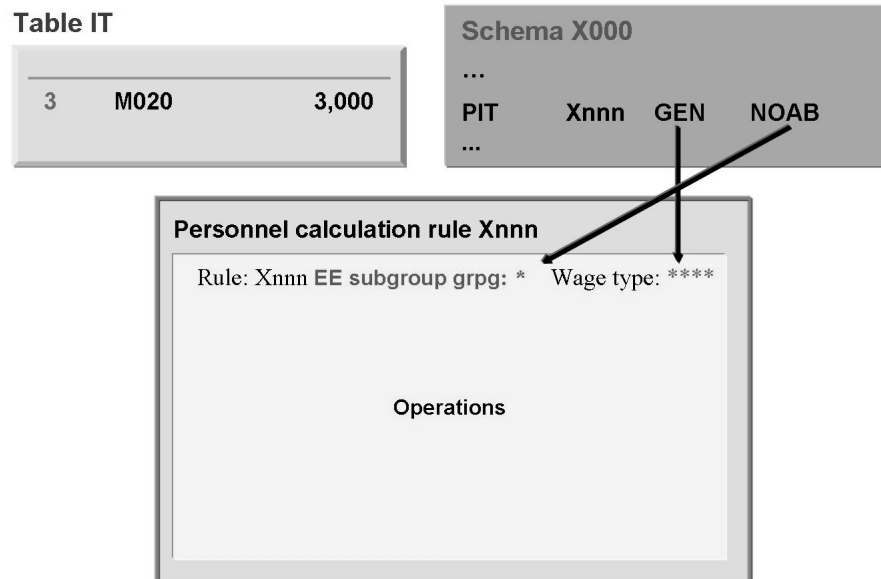


Figure 43: Generic Rule Access

The function **PIT (Process Input Table)** generically accesses the personnel calculation rule defined in the first parameter for each wage type stored in internal table IT. When doing so, the employee subgroup grouping for personnel calculation rules in the wage type is not taken into account.

Example:

The rule access is used in subschema **XEND** to access personnel calculation rule **X070**.

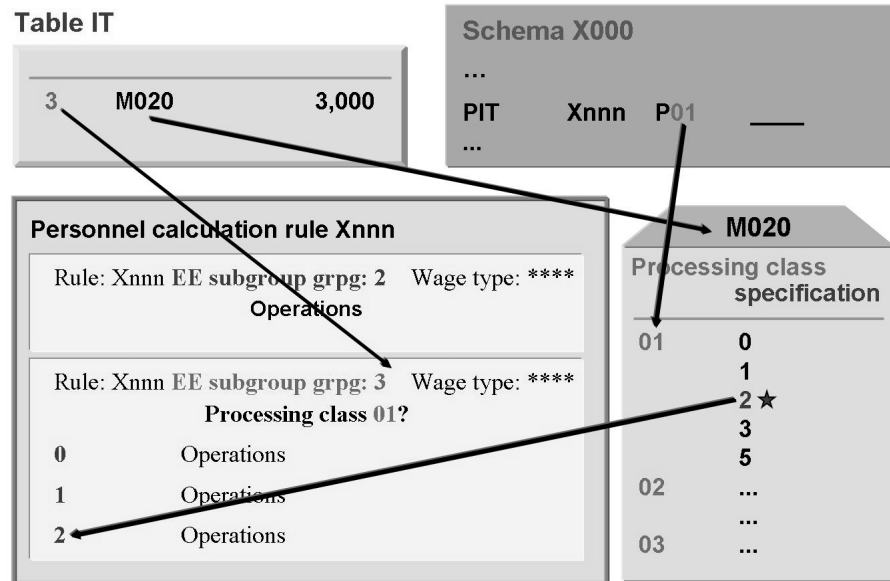


Figure 44: Rule Access Using Processing Classes

The function **PIT (Process Input Table)** processes each wage type stored in the internal table **IT** by reading the processing class defined in the second parameter and determining the specification of the processing class.

Example:

The rule access is used in subschema **XT00** to access the personnel calculation rule **X013**.

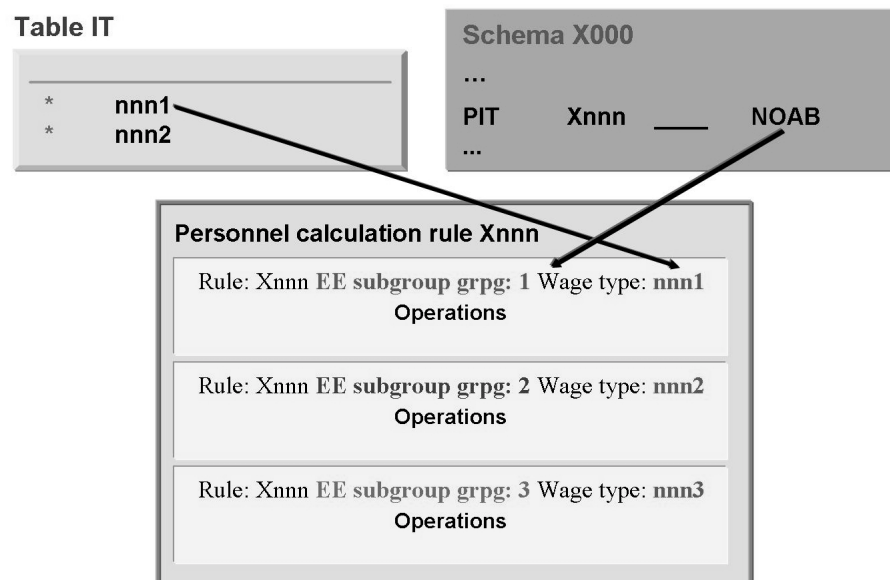


Figure 45: Rule Access Using Wage Types

The function **PIT (Process Input Table)** processes each wage type stored in the internal table IT by accessing the personnel calculation rule defined in the first parameter. When doing so, the employee subgroup grouping for personnel calculation rules in the wage type is not taken into account. If there is no processing for the wage type in the personnel calculation rule, the wage type is written to table OT without being changed.

Example:

In subschema XAL9, the personnel calculation rule XPPF is accessed in this manner.

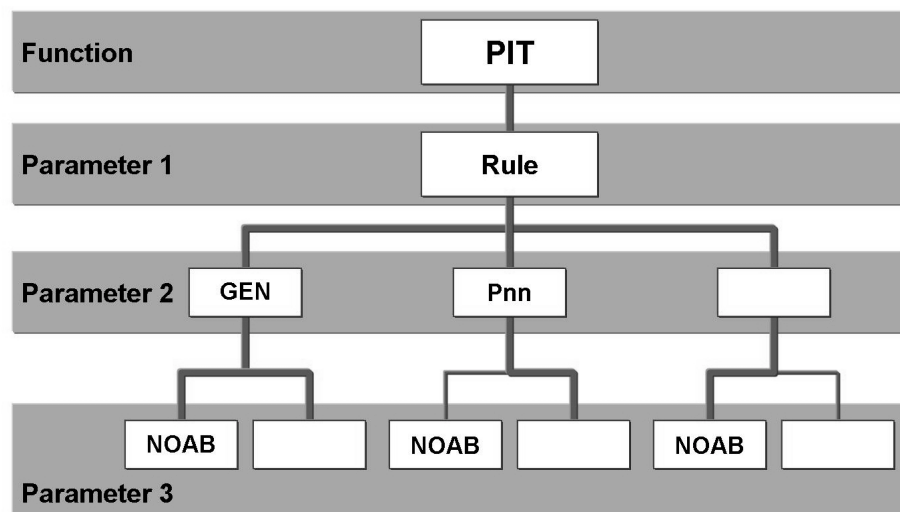


Figure 46: Rule Access Variants

This overview shows the six rule access variants. The four most common variants are marked.

Further functions used to edit wage types stored in internal tables are **PLRT**, **PORT**, **PDT**, **PRT**, and **PZL**. The personnel calculation rules are accessed using the same parameters as function **PIT**.

In parameter 2, you enter the type of rule access. The wage types to be processed can be specified using processing classes (**Pnn**). The rule can be accessed generically (**GEN**); that is, all the wage types in the table are processed in the payroll rule. If parameter 2 is empty, the personnel calculation rule is accessed for the wage type being processed.

If you have not differentiated employee subgroup groupings in a customer personnel calculation rule, you must call the rule using **NOAB** in parameter 3.



Demonstration: Accessing Schemas and Rules

Purpose

To access schemas and rules

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. To illustrate the material, you should demonstrate access from the schema and the rules that are mentioned in the course, as an example. The best way to do this is to open a second session so that you have a different window for the schema and the rule you have accessed. Display the rule in the print view.
-



Exercise 6: Functions for Processing Internal Payroll Tables

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Use various methods of accessing customer-specific personnel calculation rules

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to use customer personnel calculation rules to edit wage types in diverse payroll tables for adjusting payroll to meet your company's requirements. These personnel calculation rules must be called from the schema.

Task 1:

1. You want to process table IT using the personnel calculation rule Z001. You should access the rule by means of the employee subgroup grouping for personnel calculation rules, and not by means of the wage type.

Func.	Par 1	Par 2	Par 3

Task 2:

1. You want to process table ORT using the personnel calculation rule ZORT. You should access the rule by means of the wage type, and not by means of the employee subgroup grouping for personnel calculation rules.

Func.	Par 1	Par 2	Par 3

Task 3:

1. You want to process table IT using the personnel calculation rule Z010. You should access the rule by means of the employee subgroup grouping for personnel calculation rules, and the specification in processing class 99.

Continued on next page

Func.	Par 1	Par 2	Par 3

Task 4:

1. You want to process table RT using the personnel calculation rule ZEND. You should access the rule without using the wage type or the employee subgroup grouping for personnel calculation rules.

Func.	Par 1	Par 2	Par 3

Task 5:

1. You want to process wage type 4711 in table IT using the personnel calculation rule Z123, and you want to process the wage type in the same way for all employees.

Func.	Par 1	Par 2	Par 3

Solution 6: Functions for Processing Internal Payroll Tables

Task 1:

1. You want to process table IT using the personnel calculation rule Z001. You should access the rule by means of the employee subgroup grouping for personnel calculation rules, and not by means of the wage type.

Func.	Par 1	Par 2	Par 3

- a) Access:

Func.	Par 1	Par 2	Par 3
PIT	Z001	GEN	

Task 2:

1. You want to process table ORT using the personnel calculation rule ZORT. You should access the rule by means of the wage type, and not by means of the employee subgroup grouping for personnel calculation rules.

Func.	Par 1	Par 2	Par 3

- a) Access:

Func.	Par 1	Par 2	Par 3
PORT	ZORT		NOAB

Task 3:

1. You want to process table IT using the personnel calculation rule Z010. You should access the rule by means of the employee subgroup grouping for personnel calculation rules, and the specification in processing class 99.

Continued on next page

Func.	Par 1	Par 2	Par 3

a) Access:

Func.	Par 1	Par 2	Par 3
PIT	Z010	P99	

Task 4:

1. You want to process table RT using the personnel calculation rule ZEND. You should access the rule without using the wage type or the employee subgroup grouping for personnel calculation rules.

Func.	Par 1	Par 2	Par 3

a) Access:

Func.	Par 1	Par 2	Par 3
PRT	ZEND	GEN	NOAB

Task 5:

1. You want to process wage type 4711 in table IT using the personnel calculation rule Z123, and you want to process the wage type in the same way for all employees.

Func.	Par 1	Par 2	Par 3

a) Access:

Func.	Par 1	Par 2	Par 3
PIT	Z123		NOAB



Lesson Summary

You should now be able to:

- Define internal payroll tables
- Define the methods for rule access

Lesson: Maintenance of Personnel Calculation Rules



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Lesson Duration: 40 Minutes

Lesson Overview

In this lesson, you will learn about the maintenance of personnel calculation rules. You will learn about the attributes of personnel calculation rules. In addition, you will learn how to display rules as structural graphics.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the attributes of personnel calculation rules
- Display rules as structural graphics



Discuss all the features of the personnel calculation rules editor and how it can be used to maintain calculation rules.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to maintain the personnel calculation rules in the rules editor for differential processing.

Defining Attributes of Personnel Calculation Rules



The screenshot shows the SAP Personnel Calculation Rules editor interface. It features a 'Rule' field at the top left, followed by a 'Source text' field with 'ES grouping' and 'Wage/time type' sub-fields. Below these are 'Attributes' and 'Documentation' fields. A 'Create' button is positioned to the right of the 'Source text' field. At the bottom, there are 'Display' and 'Change' buttons.

Figure 47: Maintaining Personnel Calculation Rules

The personnel calculation rule editor enables you to display and maintain personnel calculation rules. You can access the editor under the *Tools* in the Payroll menu (transaction PE02).

Personnel calculation rules are processed according to the employee subgroup grouping and the wage type.



Attributes	
Program class	C Payroll T Time Management
Country grouping	*, 01, 02, ... 99
Person responsible	
<input checked="" type="checkbox"/>	Changes by person responsible only
Administrative data	
Created on	—
Last changed by	— on _ at _
Version	—

Figure 48: Personnel Calculation Rule Attributes

Personnel calculation rules are assigned by their attributes to a program class; that is, they are used either in Payroll or Time Management.

The responsibility for maintenance can be assigned to an employee. In this case, all other employees are **only** able to **display** the rule.

The administrative data tells you when the personnel calculation rule was created, the date and time when the last change was made, and the name of the person who made the last change.

Displaying Rules as Structural Graphics

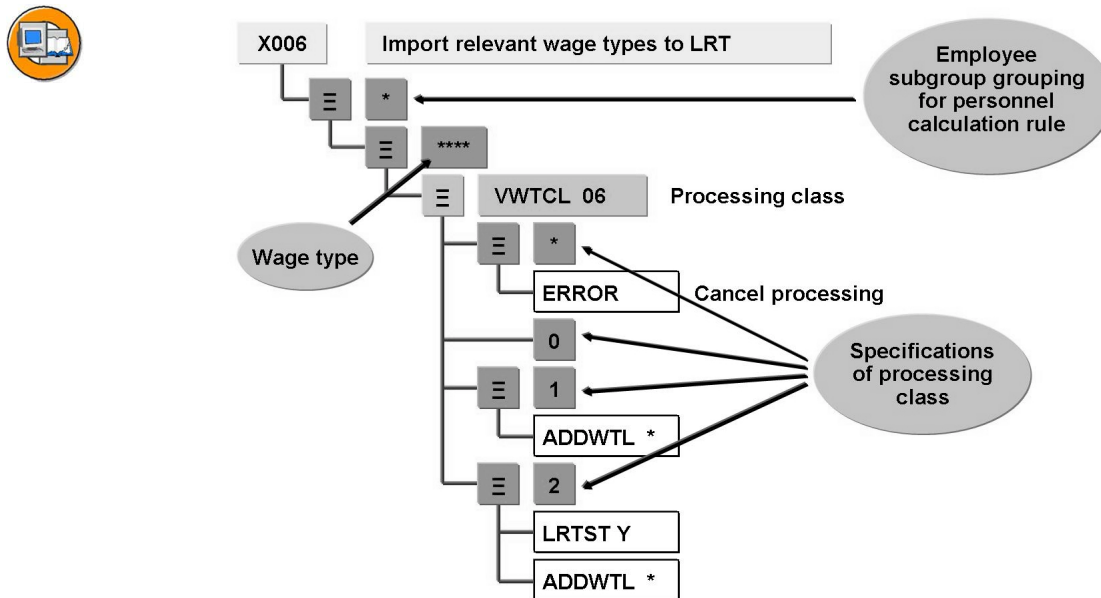


Figure 49: Displaying Rules as Structural Graphics

Structural graphics display the source text as lines and nodes linked in a hierarchical structure. You can display and change source text in the graphics mode.

The source text elements and decision operations are color-coded. Decision operations are displayed in a color different to the one used for the other operations.



Demonstration: Maintaining Personnel Calculation Rules and Displaying Rules as Structural Graphics

Purpose

To access the personnel calculation rules editor

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Call up the rule editor using the menu (*Personnel* → *Payroll* → *International* → *Tools* → *Maintenance Tools* → *Calculation Rules*) and the *Help* → *Extended Help*, show the documentation relating to the editor's functions. Then, create a new rule ZZ00.

2. This takes you to the maintenance screen for the attributes, which you should explain. Enter rule description and program class C. Lock the rule to prevent non-authorized changes, and save. Call up source text rule ZZ00 and create areas for the employee subgroup groupings 1, 2, and 3 for wage types ****. Do not perform an operation, but choose Overview and show that, as a rule, various areas are available. If required, and there is enough time, explain about Rule Editor from the Appendix and briefly explain the fields and commands. Extensively demonstrate the options of this feature for rule X006, which you copied earlier as Z006.
-



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Exercise 7: Creating Personnel Calculation Rules

Exercise Duration: 30 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Create customer-specific personnel calculation rules and access the rules from the schema

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to adjust payroll to meet your company's requirements. While adjusting the payroll, you need to use personnel calculation rules to edit wage types in diverse payroll tables. To access these rules, you must adjust the schema accordingly.

Task 1:

1. Make a copy of personnel calculation rule XMOD, and rename your copy ZM## (## = group number). In your subschema ZT##, go to function MOD and change parameter 1 so that your personnel calculation rule ZM## is accessed.

Task 2:

1. Change your international payroll schema Z0## so that it copies the modified subschema ZT## instead of the standard schema XT00.

Check the schema. If it contains no errors, save it.

Solution 7: Creating Personnel Calculation Rules

Task 1:

1. Make a copy of personnel calculation rule XMOD, and rename your copy ZM## (## = group number). In your subschema ZT##, go to function MOD and change parameter 1 so that your personnel calculation rule ZM## is accessed.

- a) To copy personnel calculation rule XMOD and to change subschema ZT##, choose:

*SAP Menu → Human Resources → Payroll → International → Tools
→ Customizing Tools → Calculation Rule*

Select **Copy** and enter the following data:

From rule: XMOD to rule: ZM##



Note: Later in the exercises you will modify your rule ZM##.

To change the subschema ZT##, choose:

*SAP Menu → Human Resources → Payroll → International → Tools
→ Customizing Tools → Schema*

Enter your schema ZT##.

Select **Change**.

Use the *Find* icon to locate function MOD on the line “MOD XMOD GEN”.

Enter “r” for repeat in the line number of the line “MOD XMOD GEN” and push *Enter*. This creates a copy of the line.

Deactivate one of the lines “MOD XMOD GEN” by placing an “*” in the D column.

On the line which has not been deactivated, change parameter 1 from Rule XMOD to ZM## so that your version of the rule is now active.

Check syntax and then save the changes.

Task 2:

1. Change your international payroll schema Z0## so that it copies the modified subschema ZT## instead of the standard schema XT00.

Continued on next page

Check the schema. If it contains no errors, save it.

- a) To modify the payroll schema Z0##, choose:

*SAP Menu: Human Resources → Payroll → International → Tools
→ Customizing Tools → Schema*

Enter your schema Z0##.

Select *Change*.

Use the *Find* icon to locate subschema XT00 in the line “COPY XT00”.

Enter “r” for repeat in the line number of the line “COPY XT00” and push *Enter*. This creates a copy of the line.

Deactivate one of the lines “COPY XT00” by placing an “*” in the D column.

On the line which has not been deactivated, change parameter 1 from XT00 to ZT## so that your version of the subschema is now active.

Check syntax and then save the changes.



Lesson Summary

You should now be able to:

- Identify the attributes of personnel calculation rules
- Display rules as structural graphics



Unit Summary

You should now be able to:

- Describe different employee subgroup groupings
- Identify different personnel calculation rules
- Define internal payroll tables
- Define the methods for rule access
- Identify the attributes of personnel calculation rules
- Display rules as structural graphics



Test Your Knowledge

1. Personnel calculation rules for wage types cannot be configured to perform various processes.

Determine whether this statement is true or false.

- ☐ True
- ☐ False

2. A personnel calculation rule can contain only one calculation formula.

Determine whether this statement is true or false.

- ☐ True
- ☐ False

3. When displaying rules as structural graphics, all operations are displayed in the same color.

Determine whether this statement is true or false.

- ☐ True
- ☐ False



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Answers

1. Personnel calculation rules for wage types cannot be configured to perform various processes.

Answer: False

Personnel calculation rules for wage types can be configured to perform various processes. For example, wage types for hourly wage earners are processed differently as compared to wage types for monthly wage earners.

2. A personnel calculation rule can contain only one calculation formula.

Answer: False

A personnel calculation rule can contain several calculation formulae depending on the definition and use of the rule.

3. When displaying rules as structural graphics, all operations are displayed in the same color.

Answer: False

Decision operations are displayed in a color different to the one used for other operations.

Unit 6



103

Starting Payroll



In this unit, the course participants are introduced to the important functions that are required to initialize payroll when starting the schema. It also contains an overview of the payroll schema. In addition, the payroll log is shown again, as in the following exercises participants will be required to run payroll again and will have to check the result of their Customizing activities in the payroll log. Finally, you will explain to the participants the importance of WPBP splits, and how these are created.

Unit Overview

This unit focuses on the basics of starting payroll. The unit covers the concepts behind setting up payroll, such as initializing payroll and reading basic data. In addition, the unit explains how to read master data into internal tables by filling internal tables and checking for data completeness.



Unit Objectives

After completing this unit, you will be able to:

- Initialize payroll
- Read basic data using schema XBD0
- Define work center and read master data
- Describe data splits and data completeness

Unit Contents

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Lesson: Reading the Master Data into Internal Tables	121
Demonstration: Initializing Payroll and Reading Basic Data	122
Demonstration: Filling Internal Tables and Checking for Data Completeness	124
Exercise 8: WPBP Splits	127

Lesson: Setting Up Payroll



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Lesson Duration: 40 Minutes

Lesson Overview

The lesson describes how to set the parameters in schema XIN0 for initializing the payroll program.



Lesson Objectives

After completing this lesson, you will be able to:

- Initialize payroll



Initializing Payroll

Explain functions.

Checking the Personnel Control Record

Note with participants that checking the personnel control record must be activated in the productive schema. Briefly explain the various settings of the personnel control record.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to run the payroll program for the employees of the company.

Initializing Payroll

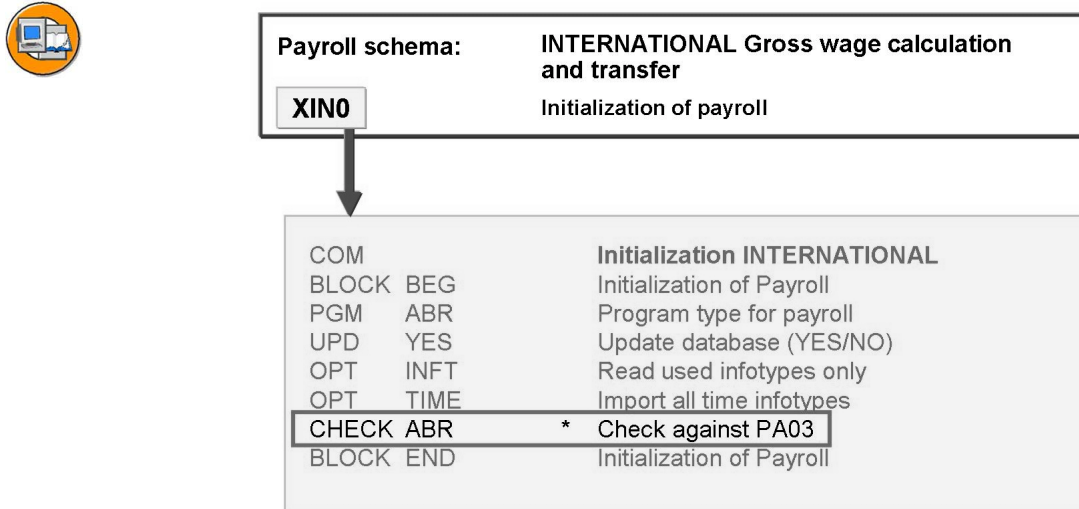


Figure 50: Initializing Payroll

At the start of the payroll run, subschema XIN0 provides the payroll driver with the data required to run the payroll program.

The function **PGM** provides the payroll driver with data on the type of program that the schema uses. The different schemas allow the payroll driver to execute the functions of diverse programs run at different times during processing. To execute the payroll program, the function must be set to the parameter ABR.

The function **UPD** controls whether the payroll results are updated on the database or only available during the payroll run. If the payroll driver has been set to **test run**, the function **UPD** will not update the database even when set to **YES**.

The function **OPT** set to the parameter INFT ensures that only the infotypes required in the functions within the schema are imported. The parameter TIME enables all time infotypes to be imported. This function is designed to enhance performance.

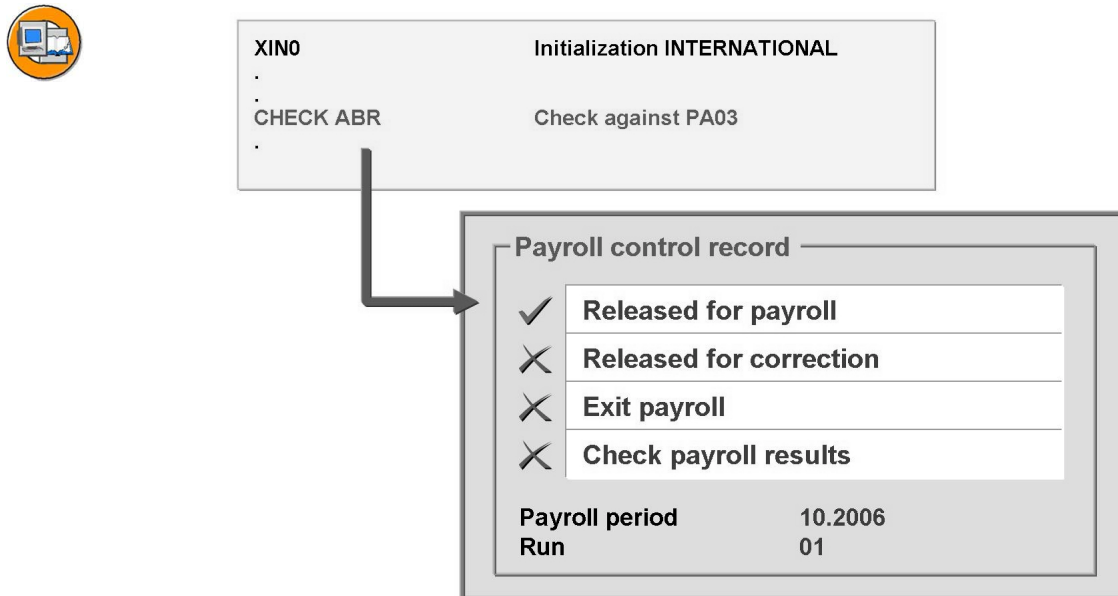


Figure 51: Checking the Personnel Control Record

The function **CHECK** set to the parameter **ABR** ensures that:

- Payroll is only run for the employees in a payroll area that has been released for payroll.
- Payroll is not run for any employees with payroll results relating to the future.

In a live payroll schema, the function **CHECK ABR** **must** be activated. The function is deactivated by setting the program to **test run**.



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Discuss the various functions in the payroll schema.



Lesson Summary

You should now be able to:

- Initialize payroll

Lesson: Reading the Master Data into Internal Tables



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Lesson Duration: 40 Minutes

Lesson Overview

This lesson explains how to read basic data using schema XBD0. It also discusses how to read the master data and fill the internal tables. In addition, it explains how to store different partial period data in internal tables and check for the completeness of the imported data.



Lesson Objectives

After completing this lesson, you will be able to:

- Read basic data using schema XBD0
- Define work center and read master data
- Describe data splits and data completeness



Importing Basic Data

Emphasize to participants that you can create variable hierarchy levels with the function BLOCK. Discuss the **Variable Hierarchy Levels** in the Appendix.

Explain how to use the WBT function to work with the WPBP table. Then, explain the need for WBT splits.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to enter the data pertaining to the organizational assignment, planned working time, and basic pay for a specific payroll period.

Reading Basic Data

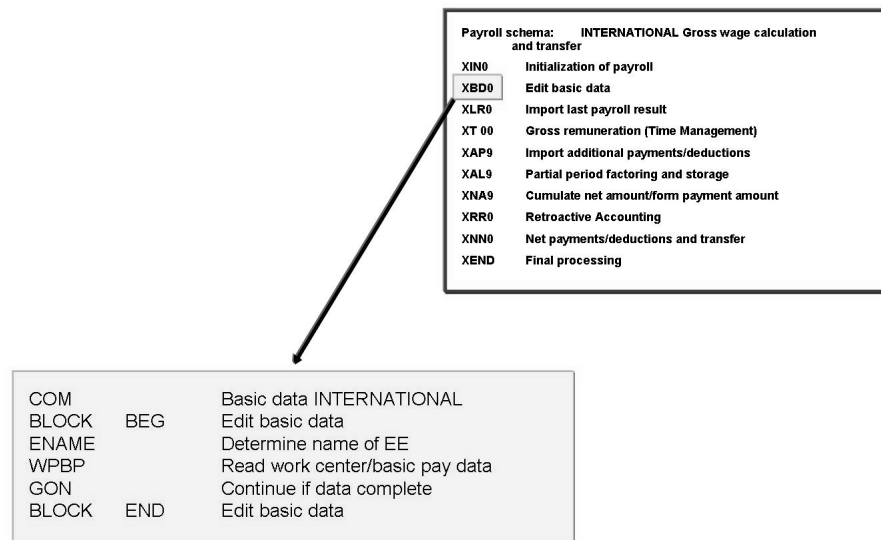


Figure 52: Importing Basic Data

Schema XBD0 is a subschema used to read the basic data that is essential to payroll.

Function BLOCK helps structure the payroll log. The start date and end date ensure that various payroll functions are grouped semantically and appear in the log under one node.



Demonstration: Initializing Payroll and Reading Basic Data

Purpose

To run the payroll program

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Show subschema XIN0. Activate CHECK ABR in schema XIN0, choose Save.

2. Show personnel control record for payroll area X0. At this point, also discuss payroll control record in the Appendix. This information comes from course HR390 (4.0) and are useful for participants who have not been on this course.
3. Simulate the payroll run for employees 01, show the payroll log, and briefly demonstrate the possibilities.

Filling Internal Tables

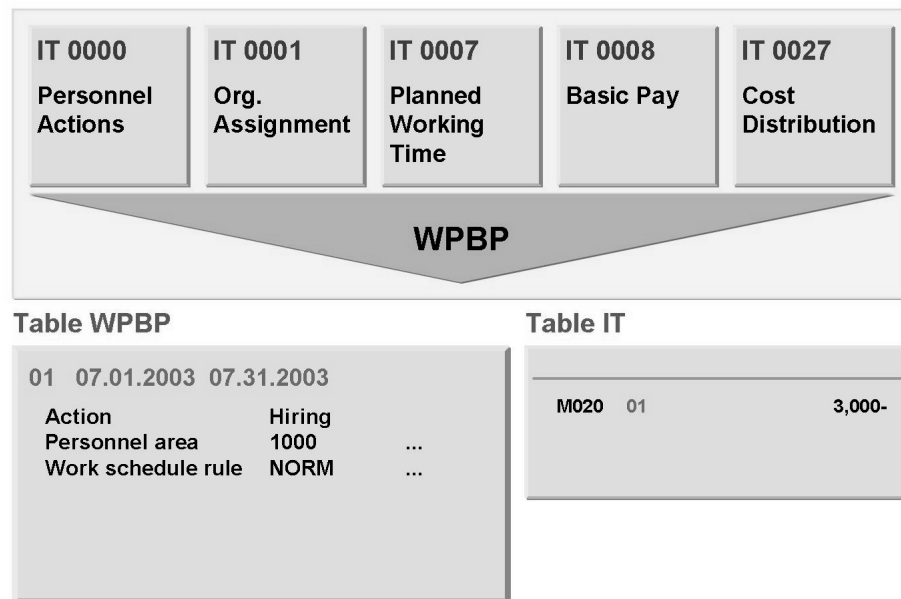


Figure 53: Reading Work Center / Basic Pay Data

The function WPBP fills the internal table WPBP with the master data, work center data, and basic pay data valid for the payroll period.

The function WPBP also fills the internal table IT with the basic pay wage types.

This data usually remains the same for the entire payroll period.

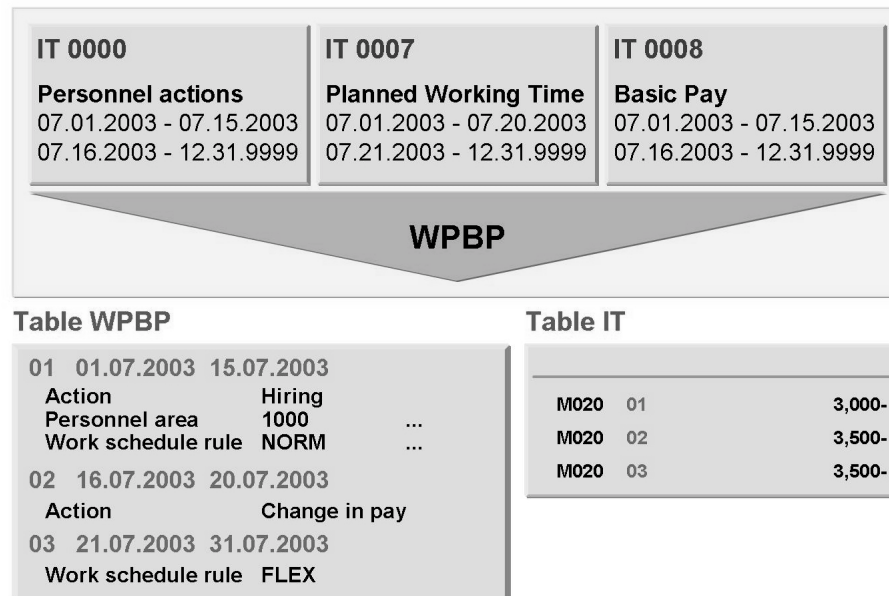


Figure 54: WPBP Splits

Various partial periods can contain different data. Where this is the case, the different entries are assigned a split indicator in the internal tables WPBP and IT.

In this example, a new employee's basic pay and planned working time have been changed during the payroll period. The system creates an entry in the table WPBP for each partial period of the payroll period.

Similarly, the table IT contains three entries for the same wage type except that the second and third partial periods specify the same amount.

Data Completeness

The function **GON** checks whether all the master data has been imported. Further processing of the personnel calculation schema only occurs if certain data is available. Checking procedures vary from country to country. However, there must always be a work center (IT 0007).



Demonstration: Filling Internal Tables and Checking for Data Completeness

Purpose

To use the WPBP table in the payroll log

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Show the tables WPBP and IT in the payroll log.
 2. Increase the employee's basic pay in the middle of the payroll period, and shortly afterwards (not at the same time) change the working hours. Then, run payroll again and show the tables WPBP and IT in the payroll log. At this point, explain the key to the results table in the Appendix.
-



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Exercise 8: WPBP Splits

Exercise Duration: 30 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Recognize WPBP splits in the payroll result

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to enter the data pertaining to the organizational assignment, planned working time, and basic pay for a specific payroll period.

Task 1:

1. Release your payroll area for correction.

Task 2:

1. Midway through the payroll period, your employee receives a bonus in basic pay. Copy the existing record of the *Basic Pay* infotype. Assign January 16 as the start date and add it to wage type 50## with an amount of 300,-.

Task 3:

1. Release payroll for payroll period 01 for your payroll area. Before you run payroll, you should create a selection variant for the payroll program (see note below). Run payroll for your employee using payroll schema Z0## (## = group number) and view the results table in the payroll log.

Exit payroll for period 01.

Task 4:

1. After you have exited payroll for your payroll area, view the whole payroll result again.



Hint: Create a selection variant for the payroll driver to ensure that your schema **Z0##** is used when you run payroll in the following exercises.

Solution 8: WPBP Splits

Task 1:

1. Release your payroll area for correction.
 - a) To release the payroll area for correction, choose:
SAP Menu: Human Resources → Payroll → International → Payroll → Corrections

Task 2:

1. Midway through the payroll period, your employee receives a bonus in basic pay. Copy the existing record of the *Basic Pay* infotype. Assign January 16 as the start date and add it to wage type 50## with an amount of 300,-.
 - a) To choose a bonus to your employee, choose:
SAP Menu: Human Resources → Personnel Management → Administration → Maintain HR Master Data

Enter your employee's personnel number (400991##), select the *Basic Pay* infotype and choose *Copy*.

Set the start date of the new infotype record to 01.16 of the current year. On the second wage type line, enter wage type 50## with an amount of 300,-. Save the infotype record.

Task 3:

1. Release payroll for payroll period 01 for your payroll area. Before you run payroll, you should create a selection variant for the payroll program (see note below). Run payroll for your employee using payroll schema Z0## (## = group number) and view the results table in the payroll log.

Continued on next page

Exit payroll for period 01.

- a) To run payroll for your new employee, choose:

SAP Menu: Human Resources → Payroll → International → Payroll → Release Payroll

Confirm the message that you are releasing payroll for period 01 for your payroll area.

SAP Menu: Human Resources → Payroll → International → Payroll → Start Payroll

Enter the following data in the payroll driver selection screen:

Payroll period	Current period
Payroll area	Your payroll area
Schema	Z0##
Log	Display log

To create a selection variant for the payroll program RPCALCX0: from the payroll driver selection screen, select: *Goto → Variants → Save as variant*.

Enter a variant name and description and select *Save*.

Run payroll and view the payroll log.

Open the log tree: *Edit Basic Data → WPBP*. Review the input and output data for this function to check the imported data and tables WPBP and IT. Also view the result wage types in the results table (RT).

After you have checked your result, exit payroll: *SAP Menu: Human Resources → Payroll → International → Payroll → Exit Payroll* (for period 01).

Continued on next page

Task 4:

1. After you have exited payroll for your payroll area, view the whole payroll result again.



Hint: Create a selection variant for the payroll driver to ensure that your schema **Z0##** is used when you run payroll in the following exercises.

- a) To display the payroll results for your employee, choose:

*SAP Menu: Human Resources → Payroll → International → Tools
→ Results*

Enter your personnel number 400991##. Double-click on the line with the payroll result for period 01 in period 01 of the current year.



Lesson Summary

You should now be able to:

- Read basic data using schema XBD0
- Define work center and read master data
- Describe data splits and data completeness



Unit Summary

You should now be able to:

- Initialize payroll
- Read basic data using schema XBD0
- Define work center and read master data
- Describe data splits and data completeness



Test Your Knowledge

1. Which function provides the payroll driver with data on the type of program that the schema uses?

Choose the correct answer(s).

- ☐ A PGM
- ☐ B UPD
- ☐ C OPT
- ☐ D CHECK

2. In a live payroll schema, the function CHECK ABR may or may not be activated.

Determine whether this statement is true or false.

- ☐ True
- ☐ False

3. Function _____ helps structure the payroll log.

Fill in the blanks to complete the sentence.

4. A split indicator in an internal tables specifies the end of the tables.

Determine whether this statement is true or false.

- ☐ True
- ☐ False



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Answers

1. Which function provides the payroll driver with data on the type of program that the schema uses?

Answer: A

The PGM function provides the payroll driver with data on the type of program the schema uses.

2. In a live payroll schema, the function CHECK ABR may or may not be activated.

Answer: False

The function CHECK ABR must be activated in a live payroll schema.

3. Function BLOCK helps structure the payroll log.

Answer: BLOCK

4. A split indicator in an internal tables specifies the end of the tables.

Answer: False

Split indicators specify the division of data in the internal tables that have different partial period data.

Unit 7



Valuation of Wage Types



This is the first unit of this course, which looks at problematic topics. You should familiarize participants with the various ways of assigning time wage types with remuneration. You also introduce participants to payroll Customizing and the processing of personnel calculation rules.

Unit Overview

This unit focuses on wage type valuation using constant remuneration and person-related remuneration. The unit explains the concepts behind wage type valuation using constant remuneration, such as valuation using wage type dependent constants and valuation using pay scale dependent constants. In addition, the unit explains key concepts behind person-related valuation bases such as Rule X010, Rule X013, and derived wage types. Finally, the unit shows how to value wage types in schemas.



Unit Objectives

After completing this unit, you will be able to:

- Identify the types of constant remuneration
- Understand the evaluation of wage types using the XMOD rule in the schema
- Identify the basis of person-related valuation bases
- Describe the various personnel calculation rules
- Differentiate between current and derived wage type valuation bases
- Understand the valuation of wage types using the X010 and X013 in the schema
- Identify types of valuation bases

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Lesson: Valuation Using Constant Remuneration



120

Lesson Duration: 30 Minutes

Lesson Overview

This lesson discusses the types of constant remuneration and the valuation of time wage types using constant remuneration. In this lesson, you will also learn about the valuation of wage types using the XMOD rule in the schema.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the types of constant remuneration
- Understand the evaluation of wage types using the XMOD rule in the schema



Valuating Time Wage Types

Explain thoroughly the two common ways to incorporate time wage types into payroll. Show how and where employee remuneration information is recorded in the system. Do the same for the infotypes Overtime, but do not save the data.

Valuation: Constant Remuneration (1)

This topic contains a problem which is to be resolved.

Wage Type-Dependent Constants (1)

Point out that the modifier in the view is not of interest at this stage, and that the standard value here is 01.

Valuation: Constant Remuneration (3)

Modifiers for Table Access

Explain the procedure thoroughly. This topic explains the purpose of the modifiers that are used at various points in the payroll. It is crucial that the participants understand this.

Personnel Calculation Rule: XMOD

Explain how the rule is constructed and how to call up information using online documentation.

Wage Type-Dependent Constants (2)

Stress that a wage type can be stored in the system with various remuneration amounts for different employee groups.

Valuating Wage Types in the Schema (1)

Order each job in the overall structure of the schema. This is an important step, as it should help participants to understand the overall structure of payroll.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to process overtime for different working hours for the payroll.

Introduction to Valuation Using Constant Remuneration



- Overtime that is not recorded automatically, but entered on a time sheet, can be processed for payroll in the following two ways:
 - The working times are added and entered in the *Employee Remuneration Information* infotype (2010) with certain wage types.
 - The exact days and hours of the employee's working times are recorded. This can be done manually in the *Overtime* infotype (2005). The system then chooses the time wage types to be used in the payroll run from a table.
- The system processes PDC (plant data collection/time evaluation data) automatically.
- In both cases, the wage types initially contain the number of hours of overtime that the employee has worked. This figure is specified in the number field (NUM) to be multiplied by a payable amount.



Demonstration: Introduction to Valuation Using Constant Remuneration

Purpose

To create a constant valuation for a wage type

System Data

System:

Client:

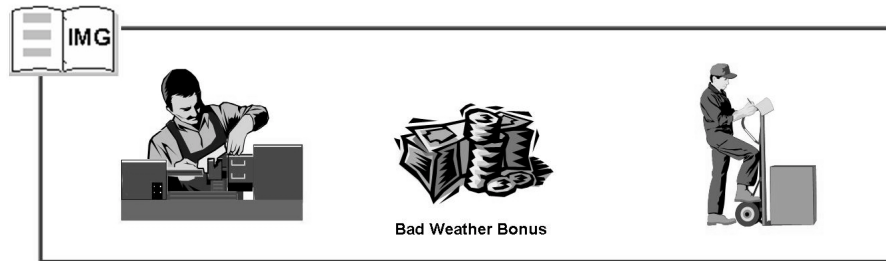
User ID:

Password:

Set up instructions:

1. Using the IMG, create a constant valuation of the wage type 2000 Bad Weather Bonus using the modifier 01 and specify the time period for the entry.

Valuation Using Wage Type Dependent Constants



Wage type	Start date	End date	Amount
...			
2000	01.01.2004	12.31.2006	7,-
2000	01.01.2007	12.31.9999	9,-
4000	01.01.2006	12.31.9999	20,-
...			

Figure 55: Wage Type-Dependent Constants (1)

In payroll, a wage type is valued using a constant amount. The amount does not depend on the employee's organizational assignment or on any other characteristics.

Each wage type can have several entries denoting various validity periods.



Demonstration: Pay Scale Valuation for a Wage Type

Purpose

To create a pay scale valuation for a wage type

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. With the aid of the IMG, create a pay scale valuation of wage type 2000 Bad weather bonus for pay scale type 01 and area 01 and group E03.

Valuation Using Pay Scale-Dependent Constants



Entries per: - Pay scale type
- Pay scale area

Grpg	Group	Level	Wage type	Start date	End date	Amount
...						
3	GR04	01	9010	01.01.2006	12.31.9999	10,-
3	GR04	02	9010	01.01.2006	12.31.9999	12,-
...						

Figure 56: Pay Scale-Dependent Constants

If wage types are subject to constant valuation depending on their pay scale level assignment, you must define the values for each pay scale level assignment and wage type.

Note the various employee subgroup groupings for collective agreement provisions specified when the employee subgroups are defined.



Demonstration: Constant Valuation for a Wage Type

Purpose

To create a constant valuation for a wage type

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. With the aid of the IMG, create a constant valuation of the wage type 2000, Dirty Work Bonus, using the modifier 02. Create employee remuneration information for the new employee for 10 hours with this wage type, run the payroll, and show the result.

Valuation Using Modifiers for Table Access

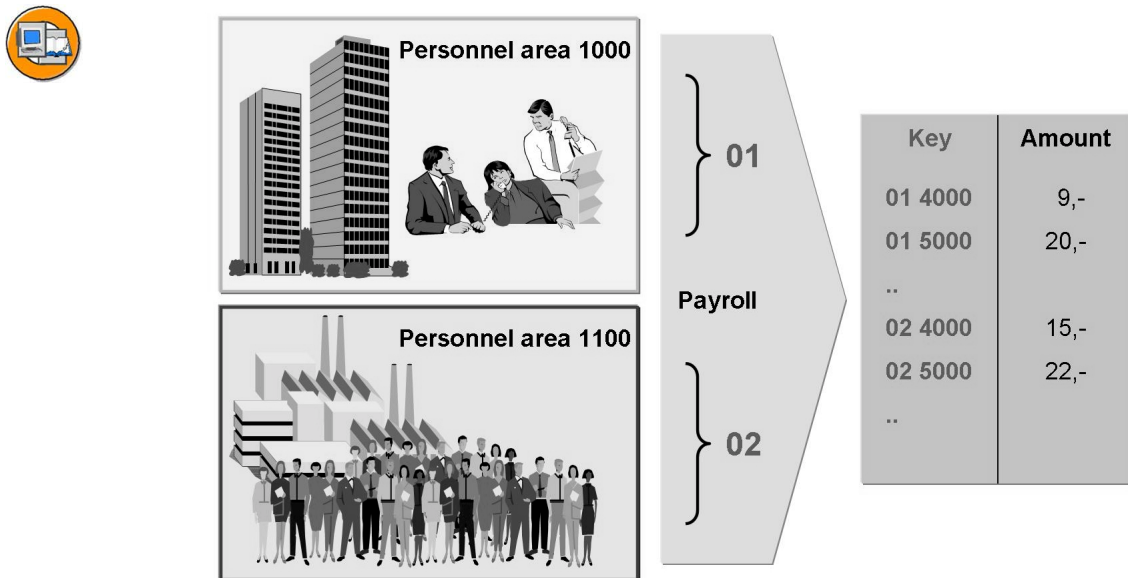


Figure 57: Modifiers for Table Access:

Elements of remuneration, such as bonuses, usually vary depending on the organizational unit.

Example:

You want bonus wage type 4000 to be remunerated differently in personnel area 1000 from personnel area 1100. To do this, the system uses a modifier in the first position of the key specified in the table. The default SAP value for modifiers is **01**. The modifier for personnel area 1100 is created in customizing by copying modifier **01**, renaming it **02**, and entering the relevant amount. During the payroll run, the system sets the modifier to the required value according to the personnel area assigned to each personnel number.

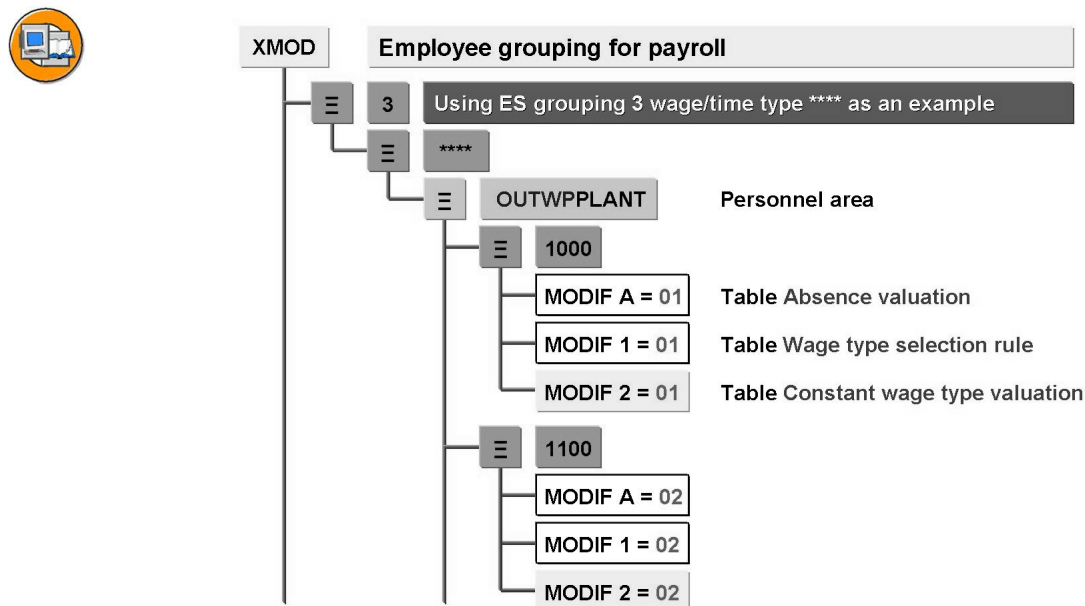


Figure 58: Personnel Calculation Rule XMOD

In the payroll run, function **MOD** centrally assigns the modifiers described on the previous page to personnel calculation rule **XMOD**.

You use decision operation **OUTWP**, with various parameters to define an employee's organizational characteristics, such as the company code and personnel area. Operation **MODIF** sets the modifiers for table access. The parameters used for operation **MODIF** represent various tables.

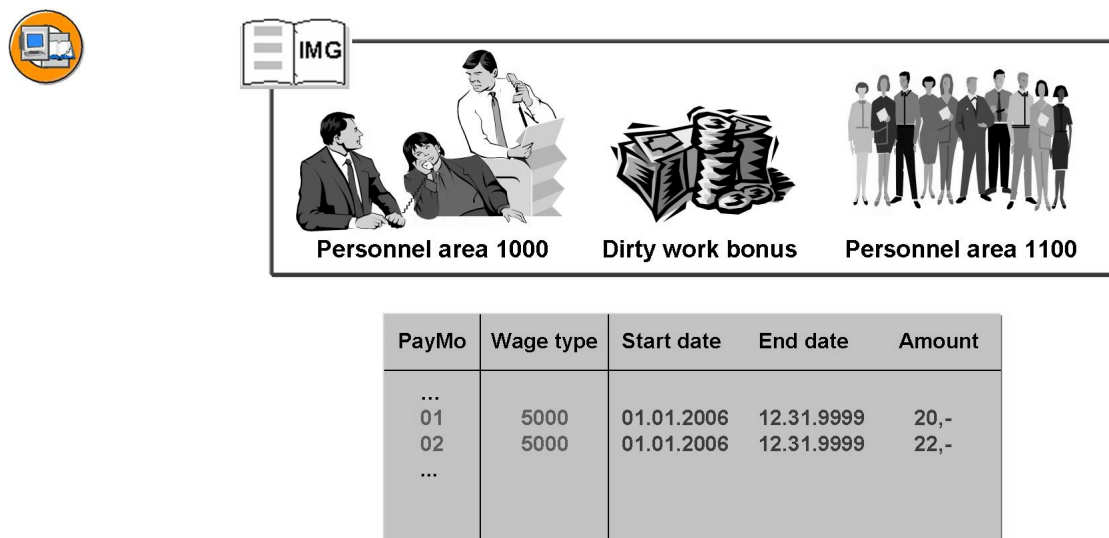


Figure 59: Wage Type-Dependent Constants (2)

This represents a complete view of the table **Wage type-dependent constants**. If, as described in the first scenario, the values are all the same, use the model SAP entries in the standard system. Here, the payroll modifier (MODIF 2) is set to the value **01**.



- XT00: Time data processing INTERNATIONAL
- .
- .
- .
- .
- MOD XMOD GEN - Determine payroll modifiers
- .
- P2010 X930 GEN NOAB - Edit employee remuneration information
- .
- PIT X015 GEN - Valuate time wage types
- .
- .

In subschema XT00, personnel calculation rule XMOD queries employee work center data and sets modifiers that access the table for wage type-dependent constants.

Function P2010 imports the bonuses for dirty work entered as employee remuneration information. The wage types are then stored in the internal table IT with the number of hours specified in the NUM field.

The RTE field remains empty. Valuation is performed in personnel calculation rule X015, which checks whether the internal table IT contains time wage types. If time wage types are found in table IT, the system performs the valuation set up in customizing. In scenarios 1 and 3, valuation is performed using a wage type-dependent constant.



Demonstration: Rule: XMOD

Purpose

To call up information

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Give further explanations of the rule and how to call up information.
-



Demonstration: Schema XT00

Purpose

To display the relevant parts in schema XT00

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Display the relevant parts in schema XT00 and on the board.
-



Exercise 9: Creating Constant Valuation Bases

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Adjust personnel calculation rule XMOD to meet customer requirements
- Create a constant valuation basis for a wage type

Business Example

Your company pays time wage types with amounts that vary depending on the employee's organizational assignment. These time wage types include a “bad weather bonus” of 5.00 per hour. If the employee works outside during inclement weather, the wage type is entered as employee remuneration information.

Task 1:

1. In your personnel calculation rule ZM## (## = group number) within grouping 3 of the employee subgroup for personnel calculation rules, set **MODIF 2** to the value xx (xx = ## + 50). This is for the *Constant Wage Type Valuation table*.

Call up the *Constant Wage Type Valuation table* and enter 5.00 as the amount under the payroll modifier xx for wage type 20## Bad weather bonus (starting January 01 of the current year).



Note: Wage type 20## has been created for you.

Task 2:

1. Assign employee remuneration information to your employee in payroll period 02 using wage type 20## for 10 hours (note: use the Number/Unit field to enter the value 10), and ensure that the date of the remuneration information lies within the payroll period. Then, run payroll for the payroll period using your selection variant. Review the payroll log to check that payroll has been run correctly for wage type 20##.

Continued on next page

Do not exit payroll for this period.



Hint: You should work with three sessions for this and all the following exercises:

- One session for Customizing in the Implementation Guide
- One session for maintaining master data
- One session for the payroll menu

Solution 9: Creating Constant Valuation Bases

Task 1:

1. In your personnel calculation rule ZM## (## = group number) within grouping 3 of the employee subgroup for personnel calculation rules, set **MODIF 2** to the value xx (xx = ## + 50). This is for the *Constant Wage Type Valuation table*.

Call up the *Constant Wage Type Valuation table* and enter 5.00 as the amount under the payroll modifier xx for wage type 20## Bad weather bonus (starting January 01 of the current year).



Note: Wage type 20## has been created for you.

- a) Choose:

SAP Menu: Tools → Customizing → IMG → Edit Project

In this course, you can either use the **HR400 Payroll Configuration** project or the **Reference IMG**. Push the *SAP Reference IMG* button if you want to work with it.

If you want to work with the HR400 project, you must first include it in your worklist. Choose *Include in Worklist* and select the project on the screen that appears. Choose *Copy* to add it to your work list.

To set the modifier for the *Constant Wage Type Valuation table* in the calculation rule, go to:

IMG → Payroll International → Time Wage Type Valuation → Valuation Bases → Constant Valuation Bases → Define Wage Type-Dependent Constants

In the dialog box, choose the activity *Set modifier for constant valuation*.



Note: The IMG automatically calls personnel calculation rule XMOD. Note that you have already copied it as personnel calculation rule ZM## and included it in your schema Z0## (## = group number).

In the Graphical Editor, open employee subgroup grouping 3 for Payroll. Continue to open the structure until you reach the operation MODIF 2=01. With the cursor on this operation, select the *Change Entry* icon. Overwrite the value 01 with your modifier xx (xx = +## + 50, for example group 01 = 51). Select Enter to confirm the change. Save the change and return to the dialog box.

Continued on next page

To add an entry to the *Constant Wage Type Valuation* table, choose the *Determine Constant Valuation per Wage Type* in the dialog box.

Select *New Entries* and make the following entries in the table:

PayMo	xx (## + 50)
Wage type	20##
Start date	01.01. Current year
End date	12.31.9999
Value	5.00

Task 2:

1. Assign employee remuneration information to your employee in payroll period 02 using wage type 20## for 10 hours (note: use the Number/Unit field to enter the value 10), and ensure that the date of the remuneration information lies within the payroll period. Then, run payroll for the payroll period using your selection variant. Review the payroll log to check that payroll has been run correctly for wage type 20##.

Continued on next page

Do not exit payroll for this period.



Hint: You should work with three sessions for this and all the following exercises:

- One session for Customizing in the Implementation Guide
- One session for maintaining master data
- One session for the payroll menu

- a) To record wage type 20## for your employee and to run payroll, choose:

SAP Menu: Human Resources → Personnel Management → Administration → Maintain HR Master Data

Choose the infotype menu *Working times*. Select the infotype *Employee Remuneration Info.* and choose *Create*. In the *Wage type* field, enter your wage type 20## and 10 (hours) in the *Number/unit* field. Make sure that the date is in the payroll period February. Save your record.

Then choose:

SAP Menu: Human Resources -> Payroll -> International -> Payroll -> Release Payroll (for period 02)

SAP Menu: Human Resources → Payroll → International → Payroll → Start Payroll

Use your selection variant:

Menu: *Goto → Variants → Get*

Run payroll and review the log to check that the wage types have been processed correctly. Open the log: *Successful Personnel Numbers -> 400991## -> 02/current year -> Processing of Time Data -> MOD ZM## GEN*. Review the input, processing, and output steps.

Next, review *P2010 X930 GEN NOAB*; review the input and output of this import function. Finally, review the input and output of the step *PIT X015 GEN*. At this point, your wage type should be valued.

Do not exit payroll for period 02.



Lesson Summary

You should now be able to:

- Identify the types of constant remuneration
- Understand the evaluation of wage types using the XMOD rule in the schema

Lesson: Person-related Valuation Bases



132

Lesson Duration: 30 Minutes

Lesson Overview

This lesson discusses person-related valuation bases. You will also learn about the various personnel calculation rules.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the basis of person-related valuation bases
- Describe the various personnel calculation rules
- Differentiate between current and derived wage type valuation bases
- Understand the valuation of wage types using the X010 and X013 in the schema
- Identify types of valuation bases



Valuation: Person-Related Remuneration (1)

This topic contains a problem which is to be resolved.

Person-Related Valuation Bases

This topic broadly explains how to create person-related valuation bases. The personal hourly rate is calculated for employees receiving period-specific remuneration. To do so, processing class 1 checks which wage types are included in the payment sum.

Processing in Rule X010

Processing in Rule X013

Explain the technical background. The topic illustrates the operations in personnel calculation rules X010 and X013 in a simplified form.

You should also show the participants the rules in the system, and refer again to the employee subgroup grouping for personnel calculation rules. You should explain the operation of the rules on the overhead projector as follows:

What happens in X010?

IT			R	N	A
	3	M020			3,000
OT			R	N	A
Header					

	3	M020			3,000
	3	M020		0	3,000
					2.ZERO=N
Table line					
	3	M020			3000
					1.ADDWT*
	3	/001			3,000
					3.ADDWT/001

What happens in X013?

IT			R	N	A
	3	M020			3,000
	3	/001		0	3,000

OT			R	N	A
Header					
	3	M020			3,000
	3	/001	156.48	0	3,000
					2.RTE=TS-DIVP
	3	/001	19.17	0	3,000
					3.DIVID ARR
	3	/001	19.17	0	0
					4.ZERO=A
Table line					
	3	M020			3,000
					1.ADDWT*
	3	/001	156.48	0	0
					5.ADDWT*

Creating Person-Related Valuation Bases

Call up and display maintenance of processing class 1.

Assigning Valuation Bases (1)

Explain why the constant valuation for wage type 20nn took effect. The fields for derived wage types were intentionally ignored, since this will be treated under a different topic. Therefore, do not, for the time being, show the view in the system. However, for valuation K, show the stored constant valuation for wage type 2000 and for TG show the stored pay scale-dependent valuation in the system.

Valuation: Person-Related Payment (2)

This topic contains a problem which is to be resolved.

Assigning Valuation Bases (2)

Explain how wage types can be derived from a wage type, and the reasons for doing this (statement of bonuses for CO, for example).

Valuating Wage Types in the Schema (2)

Order the relevant points in the overall structure of the schema.

Types of Valuation Bases

Review and summary. Valuation bases from average values have intentionally been omitted from the topic, as they are to be covered in a dedicated unit.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to calculate the hourly bonus and overtime for employees according to the personnel area.

Introduction to Person-related Valuation Bases

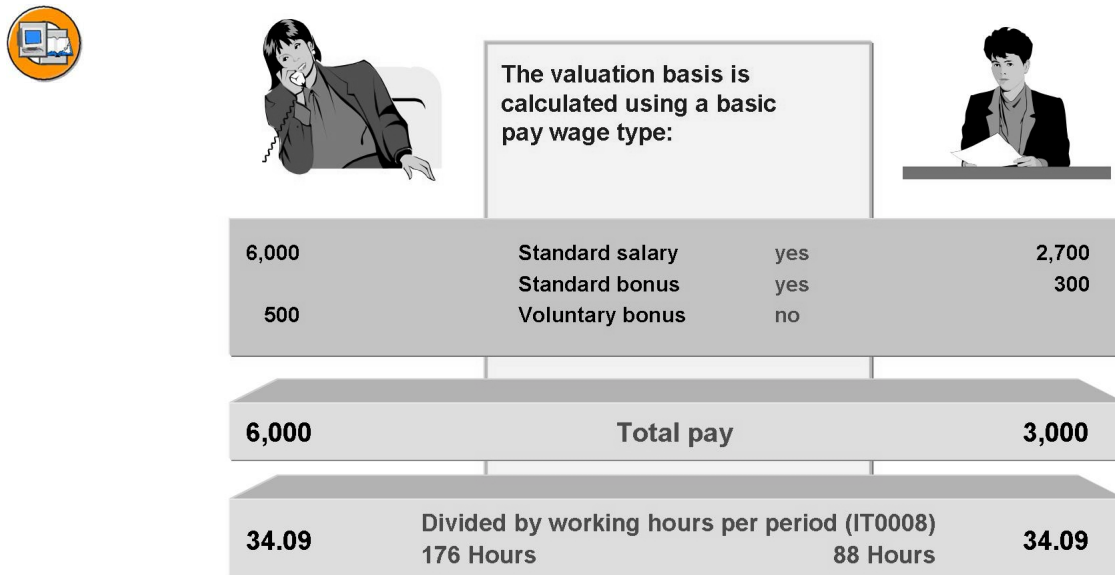


Figure 60: Person-Related Valuation Bases

The basis used to value person-related valuation bases is not a fixed constant, but an employee-specific value calculated according to the employee's remuneration.

The system flags the wage types used to calculate person-related valuation bases.

Rule X010

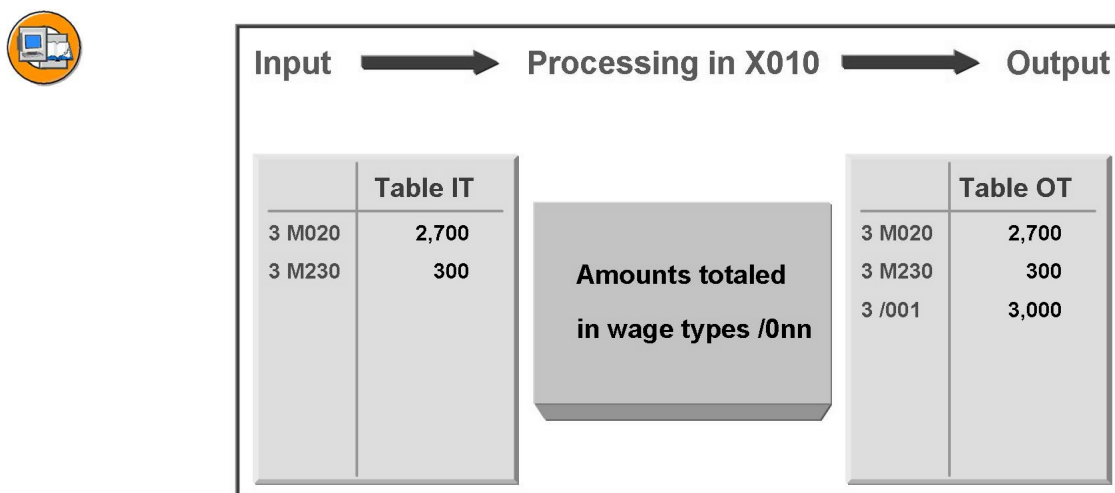


Figure 61: Processing in Rule X010

Personnel calculation rule X010 queries processing class 01 for the basic pay wage types in internal table IT. The specification of processing class 01 determines in which valuation basis the wage type is cumulated.

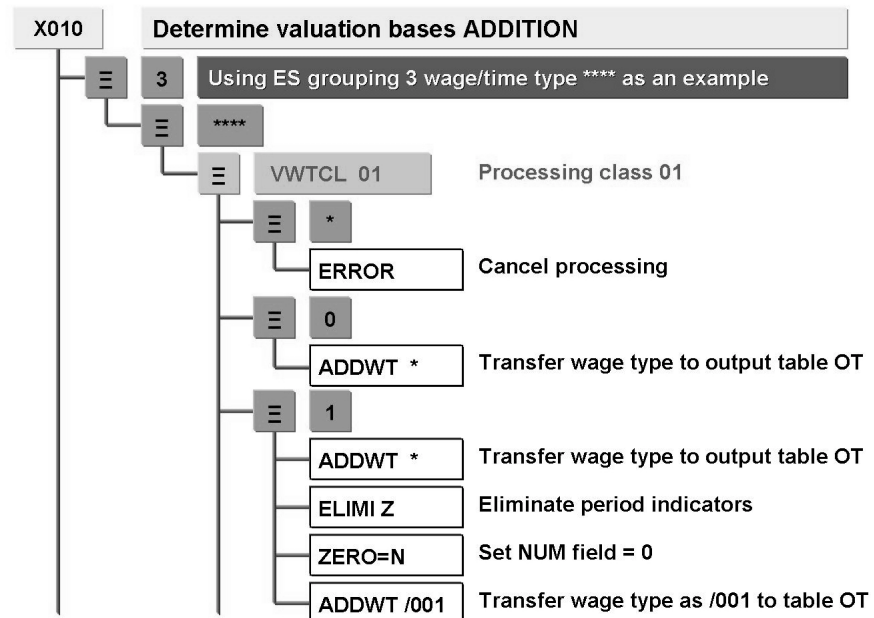


Figure 62: Personnel Calculation Rule X010

ADDWT

Add wage type to subsequent wage type.

Task: The wage type affected is transferred to internal table OT.

Input: Wage types that are in the header of the input table (= work area) valid when processing is performed.

Processing: The values of the wage type in the current work area are added to the subsequent wage type. You can also rename the wage type.

ELIMI

Eliminate period indicators.

This operation removes the period indicators (split indicators) for the wage type in the current work area. This helps to combine the values stored in wage types that up to this point were distinct.

ZERO

Initializes the current work areas.

Rule X013

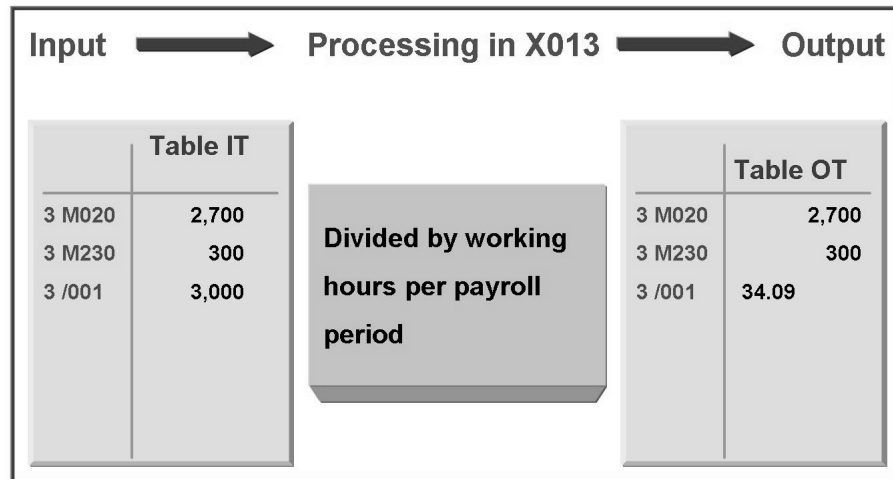


Figure 63: Processing in Rule X013

The valuation bases for employees who are not paid by the hour are divided by the flat-rate number of hours in a period. This results in an hourly rate that is stored in the rate field (RTE) for wage types /001 and /002.

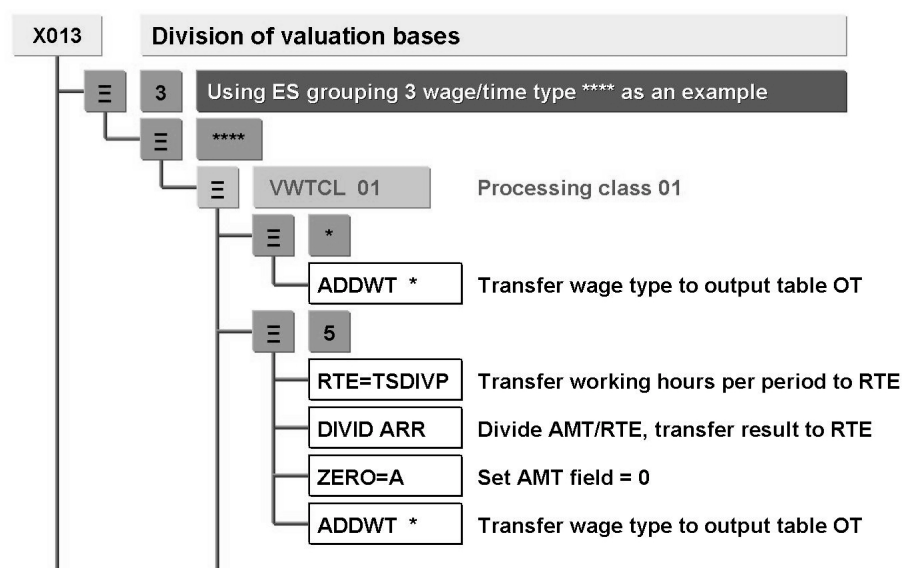


Figure 64: Personnel Calculation Rule X013

RTE:

Calculations in the current rate field (RTE):

- Task: Change value or query RTE field.
- Input: Wage types that are in the header of the input table (= work area) valid when processing is performed.
- Processing: Depending on the operator specified, this operation can be an action or a decision operation.

DIVID:

Divide:

- Task: This operation divides two fields in the current entry and places the result in another field.
- Processing: This operation processes the following fields of the current entry in table OT: **NUM** (number field), **RTE** (rate), and **AMT** (amount). Each of these fields can be divided by any other, and the result can also be stored in any of the fields.

Assigning Valuation Bases



The screenshot shows the SAP IMG configuration for assigning valuation bases. It is structured as follows:

- Wage type**: M020 (Monthly salary)
- Processing class**: 1 (Assignment to valuation bases)
- Specification**: 1 (Wage type included in /001)

Figure 65: Creating Person-Related Valuation Bases

All wage types entered in the Basic Pay infotype (0008) must be assigned to processing class 1. The specification of this processing class determines the valuation bases used for the wage types (secondary wage types /0..).



Wage type M110	Overtime hours	Start date	End date
Current wage type			
Valuation basis	<u>01</u>	StatementWT	% rate 100.00

Input options:

K = wage-dependent constant

TS = pay scale-dependent constant

TG = constant without PS level

T = pay scale-dependent constant without level and group

01 = /001

02 = /002 and so on

' ' = no valuation (possibly valuation with an average value)

Figure 66: Assigning Valuation Bases (1)

Example:

Wage type M110 was entered as employee remuneration information specifying 5 hours. Line a) shows the wage type in table IT after the employee remuneration information was imported, and line b) shows the wage type after valuation using the valuation basis specified in Customizing:

			RTE	NUM	AMT
a)	Before evaluation	M110		5	
b)	After evaluation	M110	14.10	5	70,50



Demonstration: Copying a Model Wage Type

Purpose

To copy a model wage type

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Copy the model wage type M020 to 1000 with the wage type copier in the IMG.

(Payroll -> Basic Settings -> Environment of Wage Type Maintenance -> Create Wage Type Catalog)

Participants should be familiar with the use of the wage type copier from the course HR305. However, experience has shown that there are always participants who do not have the required previous knowledge, and you should briefly explain how the WTC is used. At this point, you should also mention the customer name range for wage types. Then, show processing category 1. Change the basic pay of the new employee and run the payroll program. Show the wage type /001 in the payroll log.

Derived Wage Types



Wage type	M110	Overtime hours	Start date	End date
Current wage type				
Valuation basis	01	Statement WT	% rate	100.00
1st derived wage type				
Valuation basis	01	Statement WT	MQ10	% rate 25.00
2nd derived wage type				
Valuation basis		Statement WT	% rate	

Figure 67: Assigning Valuation Bases (2)

The first and second derived wage types enable you to define bonus wage types for which remuneration is calculated when an employee's current wage type is valued in payroll.

You can determine whether remuneration is calculated for the current wage type by specifying a valuation basis in the appropriate line.

Example:

			RTE	NUM	AMT
a)	Before evaluation	M110		5	
b)	After evaluation	M110	14.10	5	70.50
		MQ10	3.52	5	17.60

Valuating Wage Types in Schemas



- XT00 Time data processing INTERNATIONAL
- PIT X010 P01 - Create valuation bases (addition)
- PIT X013 P01 - Create valuation bases (division)
- MOD XMOD GEN - Determine payroll modifiers
- .
- P2010 X930 GEN NOAB - Edit employee remuneration information
- .
- .
- PIT X015 GEN - Valuate time wage types
- .

Rule X010 is called from within subschema XT00 (Processing Time Data in Payroll). Personnel calculation rule X010 queries processing class 01 for the basic pay wage types in the internal table IT. The specification in processing class 01 determines whether the wage type is transferred to secondary wage types that are used to create the valuation bases.

Subschema XT00 then calls personnel calculation rule X013. The values for employees not paid by the hour are divided by the flat-rate number of hours in a period. This results in an amount per working hour that is entered as the valuation basis in the rate field (RTE) for wage types /001 and /002.

Types of Valuation Bases



1. Valuation bases entered in a table as:
 - Constants dependent on wage types
 - Constants dependent on a collective agreement
2. Valuation bases calculated for specific persons using basic pay data

Valuation bases can also be determined using the average values for remuneration elements from previous payroll periods. These valuation bases will be covered later in the course.



Demonstration: Duplicating a Model Wage Type

Purpose

To duplicate a model wage type

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. In the IMG, duplicate the model wage type M110 to 3001 - 3008 and the texts in accordance with the next exercise. Then, enter valuation base 01 in the wage types and enter the bonus wage types to be derived in the basic overtime wage types.

At this point, you may branch to the Appendix, introduce the report RPDGA20 and show how you can check which wage types are included in the valuation bases and where the valuation bases are used.



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Exercise 10: Creating Person-Related Valuation Bases

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Copy model wage types to customer wage types
- Check processing class 1 for customer-specific wage types

Business Example

Your company pays time wage types that are valued using the employee's hourly rate. To calculate the hourly rate, you must encode all the wage types to be included in the calculation in processing class 1.

Task 1:

1. Make a copy of wage type M020, and rename it 10## Salary (## = group number) using the wage type copying function in the Implementation Guide (IMG).

Task 2:

1. Change the specification of processing class 1 for your wage type 10## from the start of the current calendar year. Encode the wage type in the IMG so that it is included in valuation bases /001 and /002.

Task 3:

1. Enable correction entry in your payroll area and change your employee's basic pay from wage type M020 to 10## (change without delimitation). Run payroll for payroll period 02 and check that both valuation bases have been created.

Solution 10: Creating Person-Related Valuation Bases

Task 1:

1. Make a copy of wage type M020, and rename it 10## Salary (## = group number) using the wage type copying function in the Implementation Guide (IMG).

- a) To copy wage type M020 to your wage type 10## using the wage type copier, choose:

*IMG->Basic Settings->Environment of Wage Type
Maintenance->Create Wage Type Catalog*

Choose *Copy* in the popup box. Enter M020 in the *Original Wage Type* field and 10## in the *Customizing Wage Type* field. Change the wage type text. Deselect the *Test run* check box and mark the lines with your entries. Choose *Copy* to create your wage type 10##. Review the result.

Task 2:

1. Change the specification of processing class 1 for your wage type 10## from the start of the current calendar year. Encode the wage type in the IMG so that it is included in valuation bases /001 and /002.

- a) To identify wage type 10## in processing class 1:

IMG->Payroll: International->Time Wage Type Valuation->Valuation Bases->Create Person-Related Valuation Bases

Choose the activity *Maintain basic pay for valuation bases*.

Select your wage type and choose *Details*. Press the *Delimit* button and in the *Valid From* field, enter 01.01.current year. Display the specifications for processing class 1, and choose specification 3. Do not forget to save the setting you have made.

Continued on next page

Task 3:

1. Enable correction entry in your payroll area and change your employee's basic pay from wage type M020 to 10## (change without delimitation). Run payroll for payroll period 02 and check that both valuation bases have been created.

- a) To release the payroll area for correction, choose:

SAP Menu: Human Resources->Payroll->International->Payroll->Corrections

To change the basic pay of your employee from M020 to 10##, choose:

SAP Menu: Human Resources->Personnel Management->Administration->Maintain HR Master Data

Select the *Basic Pay* infotype and then press the Overview icon. Select a record and choose *Change*. Overwrite wage type M020 with 10## and save the modified record. Repeat this procedure for the other records of the infotype.

To run payroll for your employee, choose:

Menu: Human Resources->Payroll->International->Payroll->Release Payroll

Menu: Human Resources->Payroll->International->Payroll->Start Payroll

Use your selection variant to run payroll. Check whether wage types /001 and /002 have been included in table IT of the payroll log after processing rule X013. In the payroll log, navigate to the steps PIT X010 P01 and PIT X013 P01. Review the input, processing, and output steps.

Do not exit payroll for period 02.



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Exercise 11: Assigning Valuation Bases/Derived Wage Types

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Valuate time wage types using an employee's hourly rate
- Create derived wage types for bonuses

Business Example

Your company pays various bonuses for overtime. For the first two hours overtime in a day, the employee receives a 25% bonus. For each additional hour, the employee receives a 50% bonus. Overtime on Sundays is remunerated by a 75% bonus, and overtime on public holidays by a 100% bonus. Basic overtime is also subject to remuneration.

Task 1:

1. You require time wage types for overtime remuneration. These wage types are to be entered as employee remuneration information, and an entry is only made in the fields *Number/unit* (which represents the number of hours in this instance).

The wage types must be valuated with the employee's hourly rate, which is contained in the valuation basis /001. You require the following wage types and you want to specify the premium in the statement wage types:

3##1	Up to 2 hours overtime	derived	3##5	25% bonus
3##2	From 3 hours overtime	derived	3##6	50% bonus
3##3	Overtime on Sundays	derived	3##7	75% bonus
3##4	Overtime on public holidays	derived	3##8	100% bonus

Copy wage type M110 eight times using the wage type copying function to create the wage types specified above.

Task 2:

1. Identify the valuation bases of your wage types 3##1 – 3##4 so that the hourly rate is determined from /001.

Continued on next page

Enter wage types 3##5 – 3##8 as derived wage types of 3##1 – 3##4.

Task 3:

1. Check your wage types by assigning employee remuneration information (pay attention to the date) to your employee in payroll period 02, and specifying hours for each of the wage types 3##1, 3##2, 3##3, and 3##4. If your wage types have been valued correctly for period 02, exit payroll.

Wage type	Weekday	Number/Unit
3nn1	Any day in February	10 hrs
3nn2	Any day in February	10 hrs
3nn3	Any Sunday in February	10 hrs
3nn4	Any day in February	10 hrs

Solution 11: Assigning Valuation Bases/Derived Wage Types

Task 1:

1. You require time wage types for overtime remuneration. These wage types are to be entered as employee remuneration information, and an entry is only made in the fields *Number/unit* (which represents the number of hours in this instance).

The wage types must be valued with the employee's hourly rate, which is contained in the valuation basis /001. You require the following wage types and you want to specify the premium in the statement wage types:

3##1	Up to 2 hours overtime	derived	3##5	25% bonus
3##2	From 3 hours overtime	derived	3##6	50% bonus
3##3	Overtime on Sundays	derived	3##7	75% bonus
3##4	Overtime on public holidays	derived	3##8	100% bonus

Copy wage type M110 eight times using the wage type copying function to create the wage types specified above.

- a) To copy time wage types for overtime compensation:

IMG → Basic Settings → Environment of Wage Type Maintenance → Create Wage Type Catalog

Choose *Copy*.

Enter the model wage type **M110** in the *Original WType* field, and **3##1** in the *Customizing WType* field. Select these lines.

Choose the *Copy One Wage Type* button, and enter the following information:

Wage type starts at	3##1
Number of wage types	8
Increase each step	1

Change the wage type text as appropriate. When you have done this, deselect the *Test run* check box and select *Copy*. Review the results of the wage type copy.

Continued on next page

Task 2:

1. Identify the valuation bases of your wage types 3##1 – 3##4 so that the hourly rate is determined from /001.

Enter wage types 3##5 – 3##8 as derived wage types of 3##1 – 3##4.

- a) To identify the valuation bases of your wage types 3##1 – 3##4:

IMG → Payroll: International → Time Wage Type Valuation → Valuation Bases → Assign Valuation Bases

Valuate your wage types with the valuation basis 01 to 100% and make the following entries for the first derived wage type.

Current wage type	Valuation basis	Percentage	1st derived wage type	State-ment WT	Percentage
3##1	01	100	01	3##5	25
3##2	01	100	01	3##6	50
3##3	01	100	01	3##7	75
3##4	01	100	01	3##8	100

Task 3:

1. Check your wage types by assigning employee remuneration information (pay attention to the date) to your employee in payroll period 02, and specifying hours for each of the wage types 3##1, 3##2, 3##3, and 3##4. If your wage types have been valuated correctly for period 02, exit payroll.

Wage type	Weekday	Number/Unit
3nn1	Any day in February	10 hrs
3nn2	Any day in February	10 hrs
3nn3	Any Sunday in February	10 hrs
3nn4	Any day in February	10 hrs

- a) To enter the employee remuneration information and run payroll, choose:

SAP Menu: Human Resources → Payroll → International → Payroll → Corrections

SAP Menu: Human Resources → Personnel Management → Administration → Maintain HR Master Data

Continued on next page

Choose the infotype menu *Working times*. Select the *Employee Remuneration Info.* infotype and choose *Create*. Create employee remuneration info of 10 hours for each of your wage types 3##1-3##4. Make sure that the date lies within the payroll period February.

Wage type	Weekday	Number/Unit
3##1	Any day in February	10 hrs
3##2	Any day in February	10 hrs
3##3	Any Sunday in February	10 hrs
3##4	Any day in February	10 hrs

To run payroll for February, go to:

SAP Menu: Human Resources → Payroll → International → Payroll → Release Payroll

SAP Menu: Human Resources → Payroll → International → Payroll → Start Payroll

Run payroll and check the payroll log to ensure that wage types 3##1 – 3##4 have been processed correctly. Open the *log at Successful Personnel Numbers → 400991## → 02 current year → Processing of Time Data → PIT X010 P01 and PIT X013 P01*. Review the input, processing, and output of these steps (/001 and /002).

Next, review *P2010 X930 GEN NOAB*; review the input and output of this import function. Finally, review the input and output of the step *PIT X015 GEN*. At this point in the payroll process, the wage types should have been valued and the derived wage types 3##5-3##8 created.

If your results are correct, exit payroll for period 02.

SAP Menu: Human Resources → Payroll → International → Payroll → Exit Payroll



Lesson Summary

You should now be able to:

- Identify the basis of person-related valuation bases
- Describe the various personnel calculation rules
- Differentiate between current and derived wage type valuation bases
- Understand the valuation of wage types using the X010 and X013 in the schema
- Identify types of valuation bases



Unit Summary

You should now be able to:

- Identify the types of constant remuneration
- Understand the evaluation of wage types using the XMOD rule in the schema
- Identify the basis of person-related valuation bases
- Describe the various personnel calculation rules
- Differentiate between current and derived wage type valuation bases
- Understand the valuation of wage types using the X010 and X013 in the schema
- Identify types of valuation bases



Test Your Knowledge

1. Which function imports the bonuses for dirty work entered as employee remuneration information?
Choose the correct answer(s).
 - ☐ A P2000
 - ☐ B P2005
 - ☐ C P2010
 - ☐ D P2015

2. Which of these expressions transfers the wage type to the output table OT as per the personnel calculation rule X013?
Choose the correct answer(s).
 - ☐ A $RTE = TSDIVP$
 - ☐ B $DIVID\ ARR$
 - ☐ C $ZERO = A$
 - ☐ D $ADDWT *$

3. While valuating wage types in the schema, the subschema XT00 calls the personnel calculation rule X013 first.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False



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Answers

1. Which function imports the bonuses for dirty work entered as employee remuneration information?

Answer: C

The function P2010 imports the bonuses for dirty work entered as employee remuneration information. After the import of bonuses using P2010, the wage types are then stored in the internal table IT.

2. Which of these expressions transfers the wage type to the output table OT as per the personnel calculation rule X013?

Answer: D

The expression `ADDWT *` transfers the wage type to the output table OT.

3. While valuating wage types in the schema, the subschema XT00 calls the personnel calculation rule X013 first.

Answer: False

While valuating wage types in the schema, the rule X010 is called from within subschema XT00 first. The subschema XT00 then calls personnel calculation rule X013.

Unit 8



Absence Valuation



This unit outlines how absences can be processed with regard to subsequent processing in cost accounting and factoring. The constant valuation of a wage type, which has already been dealt with, is further practiced within the context of a practical example, and is linked with absence valuation.

Unit Overview

This unit explains the concepts behind valuating absences, such as counting classes and day rules. The unit also shows how to process absences in the schema.



Unit Objectives

After completing this unit, you will be able to:

- Identify the methods for valuating absences
- Value absences using constants or averages
- Define counting classes
- Define day rules
- Use day rules
- Value absences using the As If principle

Unit Contents

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Lesson: Valuating Absences



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Lesson Duration: 40 Minutes

Lesson Overview

This lesson discusses the various methods of valuating absences. You will also learn about the use of counting classes and day rules. In addition, the lesson describes the valuation of absences using the As If principle.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the methods for valuating absences
- Valuate absences using constants or averages
- Define counting classes
- Define day rules
- Use day rules
- Valuate absences using the As If principle



Types of Absence Valuation

This topic provides an introduction to the unit. You should mention that you will be covering preliminary details of factoring later in the payroll run.

Absence Valuation: Vacation Bonus (1)

Mention that the lesson covers average valuation of vacation bonuses.

Valuating Averages by Constants

Explain the fields in the view, though do not mention the field day rule, as there is a topic dedicated to this later.

Time of Absence Valuation

Explain the content.

Defining and Creating Counting Classes

It is important to explain that for every counting class one “pot” is created for paid absences, and another for unpaid absences. The “pot” governing a given absence is controlled in the Paid field. If a counting class is flagged here as unpaid, this will have repercussions for factoring. At this point, you can briefly discuss the topic “Valuation Rules and Counting Classes”.

Assigning Absences to a Valuation (1)

Assigning Absences to a Valuation (2)

Explain procedure and show both IMG activities.

Valuation Rules and Counting Classes

This topic illustrates the customizing procedure: First of all, you create the absence valuation rules that you require. Then, you group together those absence rules that should be processed according to the same absence valuation rule. In the example, the absence types 0100, 0110, and 0120 are evaluated in accordance with valuation rule 01 Leave. Absence type 0620 is processed according to valuation rule 11. In the third step, you first define the absence counting classes, and then you fill out the counting class with paid and unpaid leave.

Grouping for Absence Valuation

Show and explain in the IMG.

Absence Valuation: Vacation Bonus (2)

Defining Day Rules:

Explain fields in IMG view, and point out the space for the customer number.

Valuating Absences According to the “As If” Principle

Explain the “As If” principle, but do not go into the selection of time wage types. Show the IMG activity.

Processing Absences in the Schema

Show the relevant areas in the schema and situate them within the overall payroll context.

Business Example

Your company is implementing HR Payroll. As a member of the project team, you need to calculate employee wages considering the following policies: Paid leaves are included in the additional wage types in the payroll and unpaid leaves should reduce the pay.

Introduction to Absence Valuation



- The system can process an employee's absences in several ways.
- **Examples:**
- An employee is sick for a long period of time.
- An employee takes a vacation.
- An employee goes on maternity leave.
- An employee takes unpaid leave.

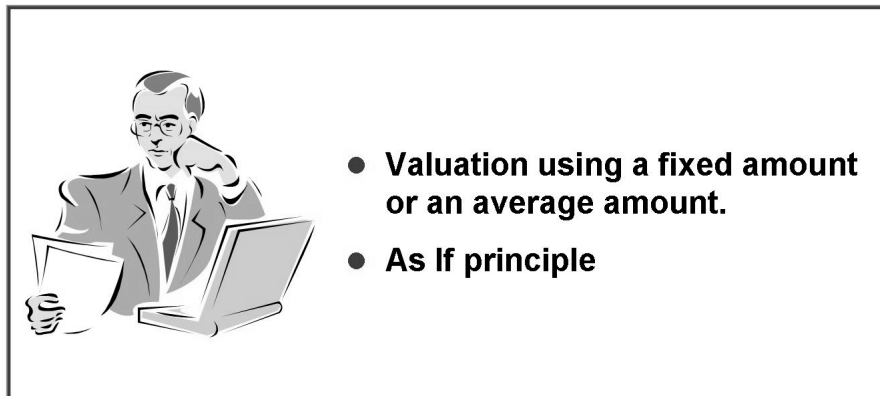


Figure 68: Absence Valuation Types

There are various methods for valuating absences. Each method can be used separately or combined with other methods.

- Valuating absences using averages or constants: For example, you want to calculate a vacation allowance bonus using the average remuneration for overtime hours worked by your employees.
- Valuating absences as if the employee had worked (The As If principle): For example, you want employees who are unable to work to receive their basic pay and bonus that they would have received had they been at work.

If employees take unpaid leave, their remuneration is reduced accordingly. Reductions in pay as a result of unpaid or partially paid absences (factoring) will be covered later in the course.



View: Absence Valuation: Averages/Constants					
AbsValGrpg		01			
Valuation rule		01	Paid leave	From	To
WType	Time	Percent.	Time unit	BP split	Day rule
M400	B	100	AT	X	—
—	—	—	—	—	—
—	—	—	—	—	—

Time units		
Absence hours	363.00	AH
Absence days	51.00	AT
Calendar days	71.00	KT
Accounting hours	363.00	RH
Accounting days	51.00	RT

Figure 69: Valuating Absences by Constants/Averages

Scenario:

1. Your employees are to receive a fixed vacation bonus for each day's leave. In this case, the system valuates the relevant wage type using a constant amount.
2. For each absence day of leave, your employees are to receive a vacation bonus based on the average amount of overtime they have worked over the last three months. In this case, the relevant wage type must be valuated using average bases.

You want to pay vacation bonus for each leave day. There are several ways in which you can remunerate leave per day:

1. Calendar days.
2. Absence days, that is, each day that counts as a workday on the work schedule.
3. Accounting days, that is, leave days processed according to the entries specified in the table, **Attendance/Absence Counting**.

If you flag the field *Basic Pay Split*, changes made to an employee's basic pay for a payroll period are taken into account.

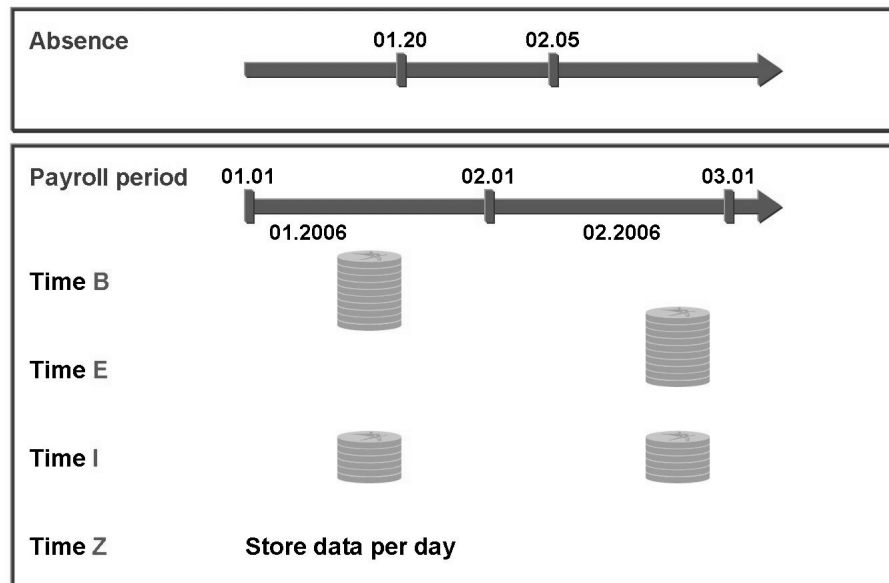


Figure 70: Time of Absence Valuation

If an employee's absence spans over several payroll periods, valuation can occur either in the payroll period in which the absence begins, the payroll period in which the absence ends, or on a pro rata basis in each payroll period affected.

Time Z writes the wage type to the internal time wage type table ZL.



Demonstration: Entries for Absence Groupings

Purpose

To show entries for absence grouping

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Show the entry for absence grouping 01 and valuation rule 01 in the IMG.

Define Counting Classes and Day Rules



View: Absence Valuation: Create Counting Classes

AbsValGrpg	01			
Valuation rule	01	Paid leave	Start	End
Counting class	Leave	% rate	Day rule	
01	X	100		
—				
—				

View: Define Counting Classes

01	Leave	xAP01	xAU01
02	Illness	xAP02	xAU02

Figure 71: Defining and Creating Counting Classes:

Counting classes are used to collect data on various absence types (for example, leave and sickness). You have the option of subdividing each counting class into paid (AP = absences paid) and unpaid absences (AU = absences unpaid).

This data on paid and unpaid absences is used to reduce pay or to generate statistical information.

1. To reduce remuneration for unpaid absences, in the standard system, all counting classes that group unpaid absences are processed together. Therefore, a prerequisite for the reduction in remuneration is that the unpaid absences are grouped together in at least one counting class. If several counting classes are to be created for unpaid absences, you must explicitly specify the counting classes that are to be taken into consideration in factoring.
2. To generate statistics and for cost accounting, you can group together absence times in the counting classes to fill wage types and evaluate the cumulated values for cost accounting or statistical purposes. You can access the counting classes using the operation NUM. Paid counting classes are queried in operations with the ID **xAPnn**, and unpaid counting classes are queried with the ID **xAUnn**, where **x = K** for the value in calendar days, **A** in workdays, and **S** in hours.



View: Absence: Payment Data

PSGrp	Abs./attendance type	From	To	VRule	Cat.
01	0100 Leave			01	-
01	0110 Leave 1/2 day			01	-
01	0120 Seniority leave			01	-
01	0200 Sickness			02	-

Absence Valuation Rule

01	Leave
02	Sickness

Figure 72: Assigning Absences to a Valuation (1)

You want to value absences for paid leave differently from absences for paid sickness, and you want all leave types to be processed using the same valuation method. To do this, you group all absence types that are valued identically by assigning them to an absence valuation rule.

Absence valuation rules determine how an employee's absences are processed in the payroll run.

The field **Category** is used in specific Austrian evaluations and for the German public sector to determine the continued pay and sick pay supplement periods.

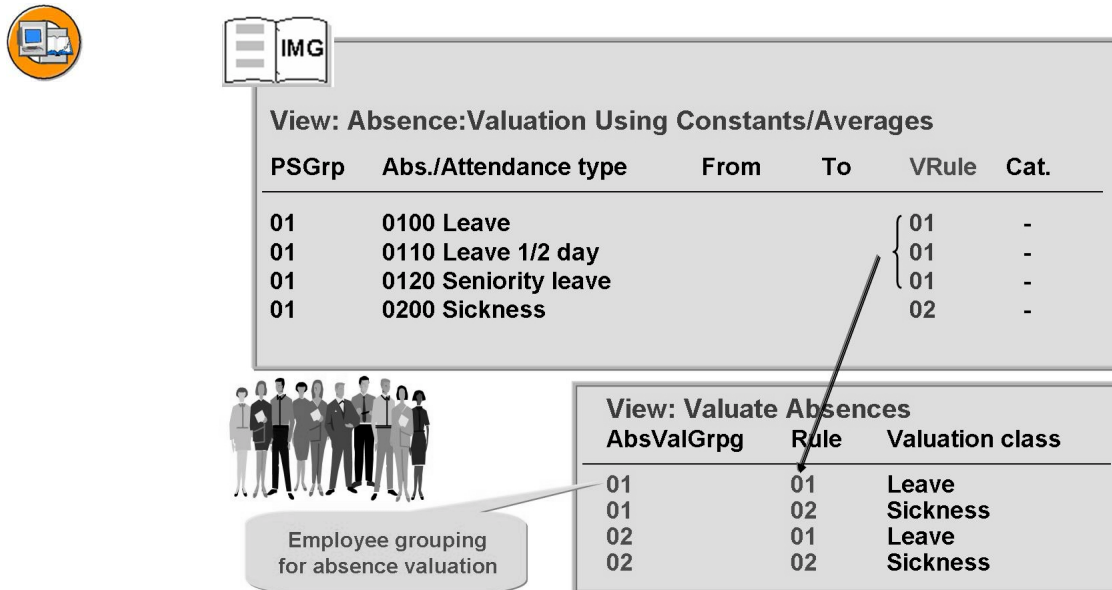


Figure 73: Assigning Absences to a Valuation (2)

To value absences, you must divide your employees into groups. This enables you to apply different absence valuation rules to each grouping.

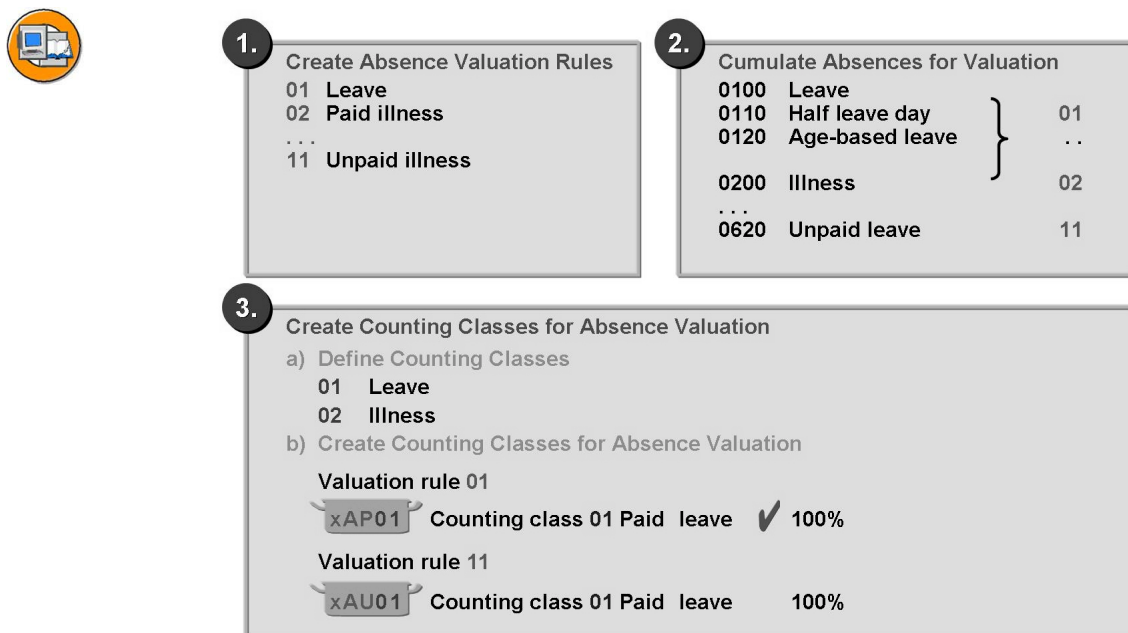


Figure 74: Valuation Rules and Counting Classes

In this example, paid leave is grouped together using the absence valuation rule 01 in counting class 01 Leave in the 'bucket' of paid absences (AP).

Unpaid leave is grouped together using absence valuation rule 11 in counting class 01 Leave in the 'bucket' of unpaid absences (AU).

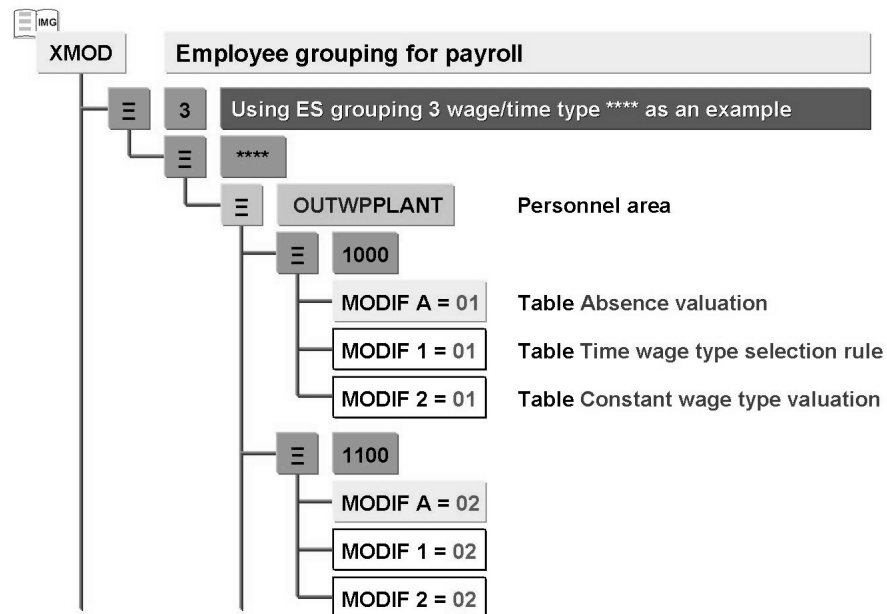


Figure 75: Grouping for Absence Valuation

In this step, you group together employees whose absences are to be valued identically in absence valuation. In this manner, you determine which table entries the system references for various employee subgroups during absence valuation.

Decision operation **OUTWP** uses work center elements to determine the modifiers.

Operation **MODIF** set to parameter **A** determines the employee grouping for accessing the **Absence Valuation** table during payroll.



View: Define Day Rules

Day rule WD
Sequential no. 00

Conditions set for holiday class	Prev. day	Current day
Holiday class BLANK - no public holiday	<input type="checkbox"/>	<input type="checkbox"/>
Holiday class 1 - public holiday	<input type="checkbox"/>	<input type="checkbox"/>
....		
Conditions set for day type		
Day type BLANK - work acc. to PWS	<input type="checkbox"/>	<input type="checkbox"/>
Day type 1 - day off	<input type="checkbox"/>	<input type="checkbox"/>
....		
Conditions set for weekday		
Monday <input type="checkbox"/>		
Tuesday <input type="checkbox"/>		
....		
	Conditions set for planned hours	
	PInd hrs > 0 <input type="checkbox"/>	<input type="checkbox"/>
	PInd hrs = 0 <input type="checkbox"/>	<input type="checkbox"/>
	

Figure 76: Defining Day Rules

Day rules allow you to form **counting classes** or **wage types** based on the following conditions set for the day of an absence:

- Public holiday class or day type of the day to be evaluated or the previous day?
- Which weekday?
- Does the employee's personal work schedule for the current or previous day show planned hours?

You can specify several different conditions for a day rule, and assign them sequential numbers. During processing, the system runs through the numbers in consecutive order until it finds an appropriate condition.

The name range reserved for customers is A - Z.



View: Absence Valuation: Averages/Constants					
AbsValGrpg	01				
Valuation rule	01	Paid leave		From	To
WType	Time	Percent.	Time unit	BP split	Day rule
M400	B	100	AT	X	WD

View: Absence Valuation: Create Counting Classes			
AbsValGrpg	01		
Valuation rule	01	Paid leave	From To
Counting class	Paid	% rate	Day rule
01	X	100	WD
11		100	DO

Figure 77: Defining Day Rules

WD - Workday: To ensure that the counting class is only formed on workdays, two conditions must be fulfilled and stored in a rule without a sequential number:

1. The day is assigned day type BLANK.
2. There are planned hours specified for the employee for this day, that is:
 - A valid daily work schedule with planned hours greater than 0, or
 - A time substitution

Making entries for just one of these conditions is not sufficient to determine a workday. If a day is assigned the day type BLANK, the decision about whether or not the employee must work is made on the basis of the planned hours in the work schedule (are there planned hours specified for the employee on the day in question or is the daily work schedule OFF?). Therefore, the planned hours in the daily work schedule and the day type must both be queried.

DO - Day OFF: Days off can be characterized by two different conditions that you represent by assigning the sequential numbers 01 and 02 to day rule DO:

1. Sequential number 01: The day is assigned day type 1.
2. Sequential number 02: There are no planned hours specified for the employee on the relevant day.

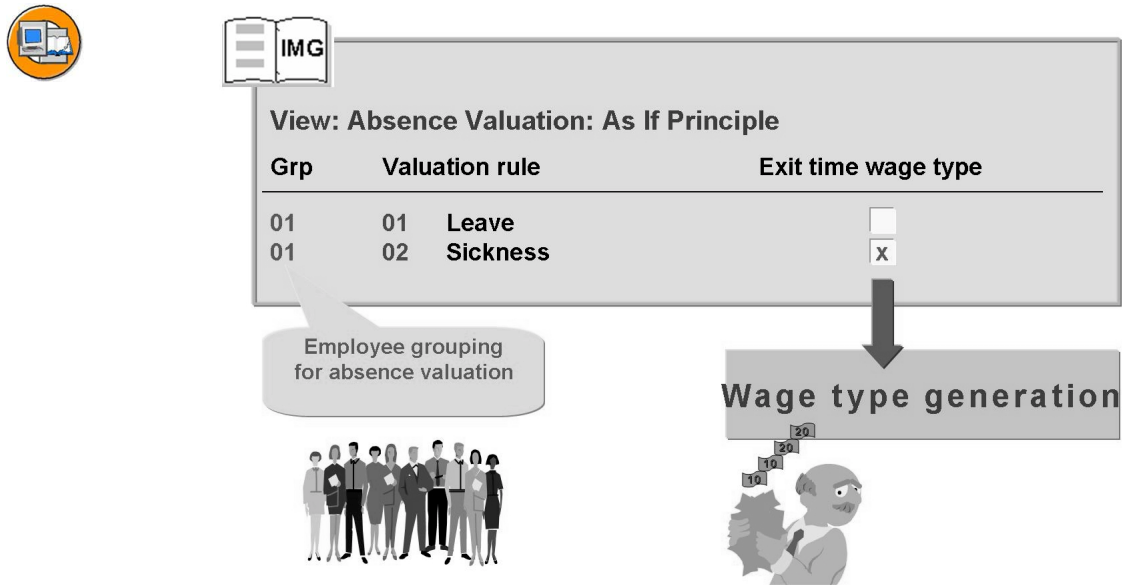


Figure 78: Valuating Absences Using the As If Principle

Absence valuation using the As If principle means paying employees exactly as if they had worked. This includes bonuses that form part of the employee's planned working time. Overtime is not taken into account when absences are valued using the As If principle.

For example: An employee grouping is paid according to time worked. One employee should have worked 160 hours in the month. Instead, he or she worked 120 hours and was unable to work the other 40 hours.

- Wage types must be generated for these 40 hours so that the employee can be paid for the absences.
- As a result of the collective agreement, legal requirements, or enterprise-specific regulations, the employee is also to receive bonuses for work on Sundays, night work, and so on, just as if he or she had worked as normal.



Demonstration: Defining Counting Classes

Purpose

To show how counting classes are defined

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. In the IMG, show how counting classes are defined, how they are created, and how the total screen for the table (expert view) looks. It is only possible to see wage type M400 (previously entered). Then, copy an existing entry and delimit it to the 1st of January of the current year. In the delimited entry, enter wage type 4000, time B, 100%, time unit RT, and basic pay split x. Enter a leave absence for the employee hired and run payroll for the period.
-

**Demonstration: Creating Day Rules****Purpose**

To create a daily rule

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Create daily rule WD (working day) with the conditions set out in the notes to ensure that the counting class is only configured on working days. Then, enter the daily rule created in the view "Absence Valuation: Averages/Constants" so that the wage type 4000 is only configured for working days.
-

Processing Absences in Schema



- XT00: Time data processing INTERNATIONAL
- .
- .
- MOD XMOD GEN - Determine payroll modifiers
- RAB: Import absences
- .
- XNAB - Country-specific absence routines
- .
- DAYPR TC00 - Day processing of time data
- .
- PAB - Edit absence data
- .
- XAB - Country-specific absence routines
- .

Function MOD calls personnel calculation rule XMOD which queries employee work center data and sets modifiers for table access during payroll.

Depending on a country's provisions, country-specific processes may be required.

A typical example, which needs to be considered for many countries, is absence due to illness. The payment can change over the course of the illness (continued pay). In absence valuation, this has been taken into account by refining the internal table Absences (AB) with function XNAB. If the whole absence record is affected by county-specific requirements, it is divided into smaller parts and transferred back to table AB.

The processing of the country-specific requirements, started by function XNAB, may have to be continued. This can only happen after the absences have been evaluated by function PAB. If necessary, processing is triggered using function XAB.



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Exercise 12: Valuating Absences

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Adjust personnel calculation rule XMOD to meet customer requirements
- Include a constant, daily vacation bonus in the payroll run
- Maintain counting class information for an unpaid absence

Business Example

Your company pays a vacation bonus for each day of leave. The amount of the vacation bonus varies depending on the employee's organizational assignment.

Task:

Your company pays a constant vacation bonus of 20.00 per payroll day. You want to include the vacation bonus in the payroll run using the absence Leave. Leave is recorded in the *Absences* infotype (2001) with the attendance/absence type **0100**. Your company allows employees to take unpaid leave. You can record this type of leave using attendance/absence type **0620**. Unpaid leave should be considered when creating the counting class for unpaid absences but should not generate a wage type.



Note: The unpaid absence is primarily being configured for use in a later exercise.

1. Determine the absence valuation grouping for your employee by setting modifier **MODIF A** to value yy ($yy = \#\# + 60$) for employee subgrouping 3 in personnel calculation rule **ZM##** ($\#\# =$ group number) for the Valuation of Absences table.
2. To ensure that the vacation bonus is valued as a constant, assign a constant valuation basis to the wage type 40## "Vacation bonus". Enter the valuation indicator K as the valuation basis of your wage type.

Create an entry for wage type **40## Vacation bonus** in the table Constant Wage Type Valuation under the payroll modifier xx ($xx = \#\#+50$) using 20.00.

3. To ensure that wage type 40## is included in your payroll runs, you must create an entry for your absence valuation grouping in the Valuation of Absences table. Use the entry for the absence valuation grouping 01 and the valuation rule 01 as a model and create an entry for your absence valuation grouping yy and the valuation rule 01 leave ($yy = \#\#+60$). Use counting

Continued on next page

class 01, and ensure that the absence is paid at 100%. The vacation bonus should be effected for each payroll day of the payroll period in which leave begins (B).

4. To produce counting information when employees take unpaid leave, you must create another entry in the *Valuation of Absences* table. Create an entry for your absence valuation grouping yy and the valuation rule 11 *Unpaid Absences*. Use counting class 03 *Other Absences* at 100% rate. Make sure to deactivate the field *Paid*.
5. Record leave for your employee using attendance/absence type 0100 that starts in the last week of March and ends in the first week of April.
6. Release and run the payroll for period 03. Check your payroll results to ensure that the entire leave was paid at the rate of 20.00 per day. If your results are correct, exit payroll for period 03.
7. Change the time of payment for the vacation bonus to payment of the full amount in the payroll period in which leave ends (E). Change your entry for absence grouping yy and now run payroll for period 04. What must you take into account as you do this?

Check your results in the payroll log to confirm whether the entire leave was paid within period 04. Do not exit payroll.

8. Change the time of payment for the vacation bonus to payment within the relevant payroll period (I). Use the *Forced Retroactive Accounting as of* field to trigger retroactive accounting for period 03. If there are no errors, exit payroll for period 04.

Solution 12: Valuating Absences

Task:

Your company pays a constant vacation bonus of 20.00 per payroll day. You want to include the vacation bonus in the payroll run using the absence Leave. Leave is recorded in the *Absences* infotype (2001) with the attendance/absence type **0100**. Your company allows employees to take unpaid leave. You can record this type of leave using attendance/absence type **0620**. Unpaid leave should be considered when creating the counting class for unpaid absences but should not generate a wage type.



Note: The unpaid absence is primarily being configured for use in a later exercise.

1. Determine the absence valuation grouping for your employee by setting modifier **MODIF A** to value yy ($yy = \#\# + 60$) for employee subgrouping 3 in personnel calculation rule **ZM##** ($\#\# =$ group number) for the Valuation of Absences table.

- a) To set up the absence valuation grouping in personnel calculation rule ZMnn:

IMG → Payroll: International → Absences → Define Grouping for Absence Valuation

Choose the activity *Define Grouping for Absences Valuation*.



Note: The IMG automatically calls personnel calculation rule XMOD. Since you have already copied personnel calculation rule ZM## from XMOD and included it in schema Z0## ($\#\# =$ group number), you now want to edit rule ZM##.

In the Graphical Editor, open employee subgroup grouping 3 for Payroll. Continue to open the structure until you reach the operation **MODIF A=01**. With the cursor on this operation, select the *Change Entry* icon. Overwrite the value 01 with your modifier yy ($yy = +\#\# + 60$, for example group 01 = 61). Select *Enter* to confirm the change. Save your changes.

2. To ensure that the vacation bonus is valuated as a constant, assign a constant valuation basis to the wage type 40## "Vacation bonus". Enter the valuation indicator K as the valuation basis of your wage type.

Continued on next page

Create an entry for wage type **40## Vacation bonus** in the table Constant Wage Type Valuation under the payroll modifier xx (xx = ##+50) using 20.00.

- a) To create constant valuation for wage type 40##:

IMG → Payroll: International → Time Wage Type Valuation → Valuation Bases → Constant Valuation Bases → Assign Valuation Bases

Change the following entry by selecting your wage type. Press the *Delimit* button and in the *Valid From* field, enter 01.01.current year. Enter the valuation basis for the current wage type:

Wage type	40##
Valuation basis	K

IMG → Payroll: International → Time Wage Type Valuation → Valuation Bases → Constant Valuation Bases → Define Wage Type-Dependent Constants

Choose the activity *Determine Constant Valuation per Wage Type*.

Create the following entry:

PayMo	xx (## + 50)
Wage type	40##
Start date	01.01. Current year
End date	12.31.9999
Value	20

3. To ensure that wage type 40## is included in your payroll runs, you must create an entry for your absence valuation grouping in the Valuation of Absences table. Use the entry for the absence valuation grouping 01 and the valuation rule 01 as a model and create an entry for your absence valuation grouping yy and the valuation rule 01 leave (yy = +## + 60). Use counting

Continued on next page

class 01, and ensure that the absence is paid at 100%. The vacation bonus should be effected for each payroll day of the payroll period in which leave begins (B).

- a) To create the entry for the absence valuation grouping yy and the valuation rule 01, choose:

*IMG -> Payroll: International -> Absences -> Valuation of Absences
-> Create Counting Classes for Absence Valuation*

Choose the activity *Absence Valuation: Expert View*.

Create the following entry:

AbsValGrp	yy (## + 60)
Valuation rule	01
Start date	01.01. Current year
End date	12.31.9999

In the *Define Counting Classes* section, enter (use the Insert icon immediately below the table to make it ready for input):

Counting class	01
Paid	activated
Percentage	100

In the *Valuation using Constants/Averages* section, enter (use the Insert icon immediately below the table to make it ready for input):

Wage type	40##
Time	B
Percent	100
Time unit	RT
WPBP Split	activated

After saving your entries, return to the overview screen for the table.

Continued on next page

4. To produce counting information when employees take unpaid leave, you must create another entry in the *Valuation of Absences* table. Create an entry for your absence valuation grouping yy and the valuation rule 11 *Unpaid Absences*. Use counting class 03 *Other Absences* at 100% rate. Make sure to deactivate the field *Paid*.
- a) To produce counting class information when an employee takes unpaid leave, you must create another entry in the *Valuation of Absences* table (without making entries in the *Valuation using Constants/Averages* section).

Create the following entry:

AbsValGrp	yy (## + 60)
Valuation rule	11
Start date	01.01. Current year
End date	12.31.9999

In the Define Counting Class sections, enter:

Counting class	03
Paid	deactivated
Percentage	100

Continued on next page

5. Record leave for your employee using attendance/absence type 0100 that starts in the last week of March and ends in the first week of April.
- a) To record cross-period leave for an employee and then to run payroll, choose:

SAP Menu: Human Resources → Personnel Management → Administration → Maintain HR Master Data

Choose the infotype tab *Working times*. Select the infotype *Absences* and choose *Create*.

Enter the following data:

Period from	a workday in the last week of period 03
Period to	a workday in the first week of period 04
Type	0100 Leave

Save the infotype.

6. Release and run the payroll for period 03. Check your payroll results to ensure that the entire leave was paid at the rate of 20.00 per day. If your results are correct, exit payroll for period 03.
- a) To run payroll for your employee, choose:

SAP Menu: Human Resources -> Payroll -> International -> Payroll -> Release Payroll (for period 03).

SAP Menu: Human Resources -> Payroll -> International -> Payroll -> Start Payroll

Choose your selection variant and run payroll. Check your payroll result to ensure that the entire leave was paid at the rate of 20.00 per day within period 03. When the result is correct, exit payroll for period 03.



Note: You can review the results in the payroll log in the section Processing time data in the function PAB and in the output section of calculation rule X015.

SAP Menu: Human Resources -> Payroll -> International -> Payroll -> Exit Payroll (for period 03).

7. Change the time of payment for the vacation bonus to payment of the full amount in the payroll period in which leave ends (E). Change your entry for absence grouping yy and now run payroll for period 04. What must you take into account as you do this?

Continued on next page

Check your results in the payroll log to confirm whether the entire leave was paid within period 04. Do not exit payroll.

- a) To create the entry for the absence valuation grouping yy (yy = ## + 60) and to run payroll, choose:

IMG → Payroll: International → Absences → Valuation of Absences → Create Counting Classes for Absence Valuation

Choose the activity *Absence Valuation: Expert View*.

Select the entry for your absence grouping yy and valuation rule 01. In the details view, change the Time field value to **E**.

Call your selection variant, and in the *Forced Retroactive Accounting as of* field, enter 03.01 of the current year. Check the results for periods 03 and 04. The entire leave should be remunerated in period 04.

SAP Menu: Human Resources → Payroll → International → Payroll → Release Payroll (for period 04)

SAP Menu: Human Resources → Payroll → International → Payroll → Start Payroll

- 8. Change the time of payment for the vacation bonus to payment within the relevant payroll period (I). Use the *Forced Retroactive Accounting as of* field to trigger retroactive accounting for period 03. If there are no errors, exit payroll for period 04.

- a) To change the entry for the absence grouping yy and to run payroll again, choose:

IMG → Payroll: International → Absences → Valuation of Absences → Create Counting Classes for Absence Valuation

Choose the activity *Absence Valuation: Expert View*.

Select the entry for your absence grouping yy and valuation rule 01. In the details view, change the Time field value to **I**.

SAP Menu: Human Resources → Payroll → International → Payroll → Start Payroll

Choose your selection variant and run payroll. In the *Forced Retroactive Accounting as of* field, enter 03.01 of the current year. Check the results for periods 03 and 04. The leave for March should be paid in period 03, and the leave for April should be paid in period 04. If your result is correct, exit payroll for period 04.

SAP Menu: Human Resources → Payroll → International → Payroll → Exit Payroll (for period 04)



Lesson Summary

You should now be able to:

- Identify the methods for valuating absences
- Valuate absences using constants or averages
- Define counting classes
- Define day rules
- Use day rules
- Valuate absences using the As If principle



Unit Summary

You should now be able to:

- Identify the methods for valuating absences
- Valuate absences using constants or averages
- Define counting classes
- Define day rules
- Use day rules
- Valuate absences using the As If principle



Test Your Knowledge

1. You can value absences as if the employee had already worked.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

2. Consider a scenario where your employees are to receive a fixed vacation bonus for each day's leave. In this case, how will the system value the relevant wage types?

3. You can specify only one condition for a day rule.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

4. Which pay component, in addition to the regular bases, is an employee entitled to while using the As If principle?



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Answers

1. You can value absences as if the employee had already worked.

Answer: True

You can value absences as if the employee had already worked, using the As If principle.

2. Consider a scenario where your employees are to receive a fixed vacation bonus for each day's leave. In this case, how will the system value the relevant wage types?

Answer: The system will value the relevant wage type using a constant amount.

3. You can specify only one condition for a day rule.

Answer: False

You can specify several conditions for a day rule and assign them sequential numbers.

4. Which pay component, in addition to the regular bases, is an employee entitled to while using the As If principle?

Answer: The bonuses that form part of the employee's planned working time are also taken into consideration, in addition to the regular wages, while using the As If principle.

Unit 9



Time Wage Type Selection



The topic covered in this unit is very important, as the remuneration of overtime is rarely dealt with through the manual assignment of employee remuneration information. The time wage types 3nn1 - 3nn8, whose valuation characteristics have already been coded, will now be complemented by entries in the Time Wage Type Selection table. To a certain extent, this enables the entries to be “automatically” included in payroll. This unit serves as an introduction to performing more complex modifications to a personnel calculation rule.

Unit Overview

This unit introduces the concepts of time wage type selection. The unit also discusses time wage type selection using rules. It also discusses the concepts of rule structure, rule groups, and time wage type selection in payroll.



Unit Objectives

After completing this unit, you will be able to:

- Describe time wage type selection
- Define time pairs
- Define time wage type selection rules
- Use the DAYMO function
- Use the GWT function
- Identify the interface between time valuation and payroll

Unit Contents

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Demonstration: The rule group structure and function DAYMO.....	222
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Lesson: Introducing Time Wage Type Selection



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Lesson Duration: 30 Minutes

Lesson Overview

This lesson focuses on time wage type selection. The lesson provides an overview of time wage type selection and overtime compensation. In addition, the lesson introduces the concept of time pairs.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe time wage type selection
- Define time pairs



Time Wage Type Selection

Explain the advantages of wage type generation.

Time Wage Type Selection and Overtime Calculation

Show the schema TC00 and point out that only the processing that is shown in color is carried out during payroll. The Time Management schema in schema TC00 has been streamlined. (This topic comes from course HR310.)

Time Pairs

Explain **Time Wage Type Selection**

Explain the processing of time pairs in the TIP using the function GWT and show the functions in schema TC00.

Business Example

You need to pay overtime to your employees. To pay your employees for overtime, the relevant time wage types must be selected from the payroll driver.

Time Wage Type Selection Concepts



Figure 79: Time Wage Type Selection (1)

If an employee's working hours are recorded manually on a time sheet and you want to maintain this data as wage types in the *Employee Remuneration Information* infotype (2010), the person responsible must be familiar with all the relevant details and take these into account. For example:

When does planned working time end, that is, when does overtime start for the employee?

Which bonus is used to remunerate overtime?

Does the employee's work schedule include weekend work, or is work at weekends the exception (do the bonuses vary)?

Is there a public holiday on the workday itself, the day before, or the day after?

The HR component allows you to check an employee's working times using certain conditions that must be defined first. Once the conditions have been fulfilled, the system can generate the required wage types and include these in the payroll run.

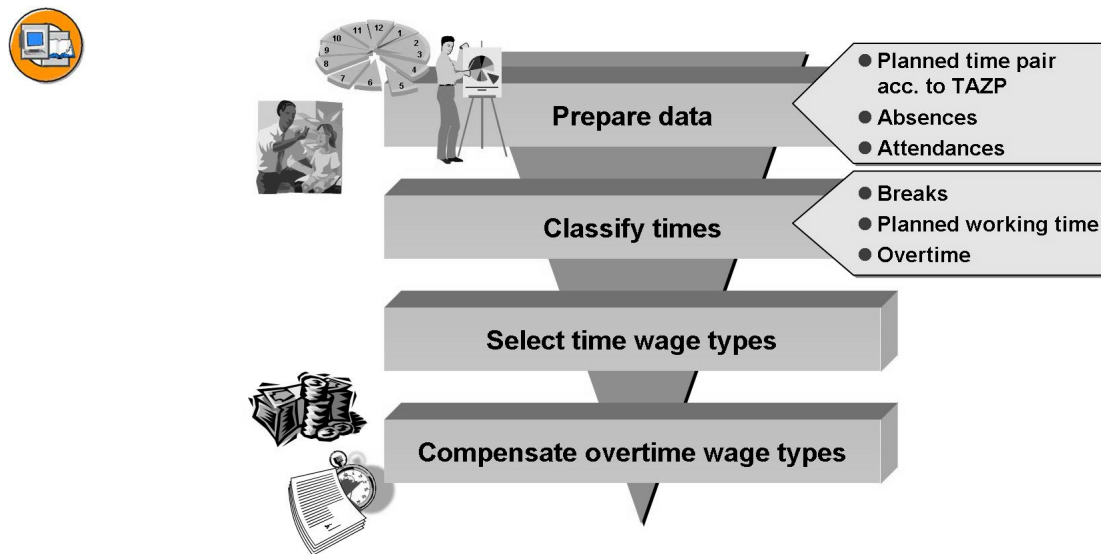


Figure 80: Time Wage Type Selection and Overtime Compensation

Time wage type selection occurs in subschema TC00. This schema is called by function DAYPR from schema XT00.

The main task of TC00 is wage type selection. Determining time wage types for planned work and overtime using the *Time Wage Type Selection Rule* view (V_T510S) and function GWT runs simultaneously with the day processing in the program RPTIME00 (Time Evaluation).

The option of administering time balances and changing quotas (compensation of overtime wage types) is a special feature of time evaluation. The function POVT in schema TC00 creates only the time wage types. Balances cannot be created and quotas cannot be updated.

In schema TC00, all times within the planned working time period are defined as planned work and all times outside of this period are defined as overtime for days, which have had no time evaluation run for them and which are to be included in the payroll run.



Calculate employee's working time

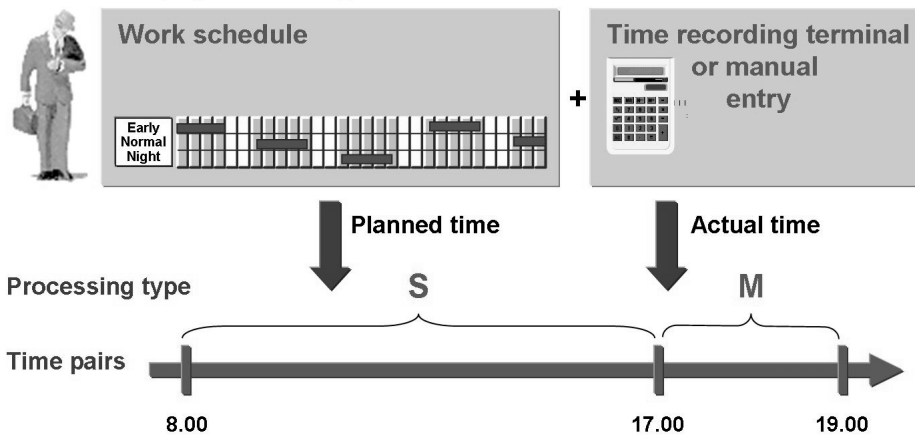


Figure 81: Time Pairs

The SAP R/3 Enterprise System displays an employee's working times in the form of time pairs (start/end times). In this example, the employee worked from 8:00 to 19:00. The time pair 08:00 to 17:00 is derived from the employee's work schedule. The pair represents the employee's planned working time and is assigned processing type **S** (planned work). The time pair 05:00 to 19:00 represents the time span the employee works outside his or her planned working time, and has processing type **M** (overtime).

For employees who do not use time recording, actual times for processing type **M** can also be recorded using the *Overtime* infotype (2005).

Time pairs are stored in the internal table TIP (Time Pairs).



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Discuss the role of the subschema TC00 in time wage type selection.



Lesson Summary

You should now be able to:

- Describe time wage type selection
- Define time pairs

Lesson: Time Wage Type Selection Using Rules



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Lesson Duration: 30 Minutes

Lesson Overview

The focus of this lesson is on the rule structures for time wage type selection. In addition, the lesson describes the use of DAYMO and GWT functions in the selection of time wage types.



Lesson Objectives

After completing this lesson, you will be able to:

- Define time wage type selection rules
- Use the DAYMO function
- Use the GWT function
- Identify the interface between time valuation and payroll



Time Wage Type Selection: Rule Structure (1)

Time Wage Type Selection: Rule Structure (2)

In the IMG, go into the generation instructions and show the view. Do not, at this point, go into time wage type selection grouping, daily grouping, or subsequent numbers. Show the view and explain it with the help of the slides.

Time Wage Type Selection Group Rule

Grouping for the Time Wage Type Selection Rule

Explain the possible differentiation and show rule TMOD in the IMG.

Time Wage Type Selection: Function DAYMO

Explain the day grouping principle. Day grouping is a criterion for subdivision within the time wage type selection rule group. If customers deviate from the SAP standard, they can enhance the processing speed. However, customers should be aware that there is an increased risk of making mistakes when configuring the table.

Example: The Rule Group Principle Using Time Wage Type Selection

The time wage type selection rule group and the day grouping are key fields in the Time Wage Type Selection table. You can use operation MODIF W to set a key in a table that is to be read. This ensures improved performance in cases where there are numerous entries by increasing the values for the day groupings by 03 and 04.

Valuation Classes for the Period Work Schedule

Explain the possibilities for differentiation.

Example: Time Wage Type Selection Rule (1)

Explain the example and draw attention to the valuation class.

Example: Time Wage Type Selection Rule (2)

Explain the example and draw attention to the valuation class.

Example: Time Wage Type Selection Rule (3)

Explain the example.

Example: Time Wage Type Selection Rule (4)

Explain the example.

Function GWT: Select Time Wage Types

Explain the function and call the IMG activity Execute Time Wage Type Selection Rule. Note that the original schema TC00 will be shown. V_554C_E denotes absence valuation according to the 'as if' principle.

Time Wage Type Selection in Schemas

Explain the IF request in the schema XT00, then amend the copied schema ZT00 in the function DAYPR to the copied subschema ZC00.

Business Example

You need to pay overtime to your employees. To pay your employees for overtime, the relevant time wage types must be selected from the payroll driver.

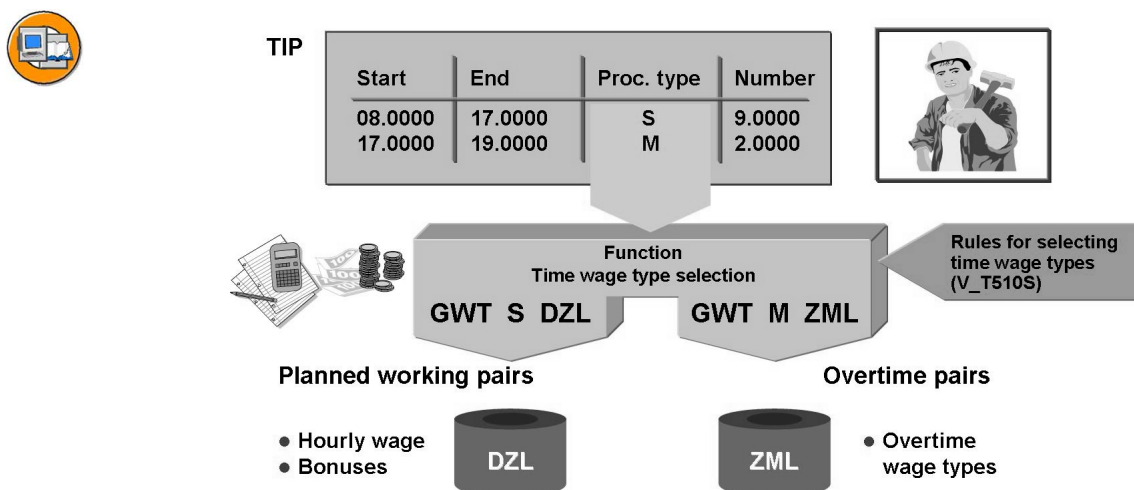
Rule Structure

Figure 82: Time Wage Type Selection (2)

When daily processing is effected, the entries in internal table TIP are generated as time wage types.

To do this, you must first define rules that assign time wage types to the entries in table TIP according to the processing type of the relevant entry (for example, S or M).

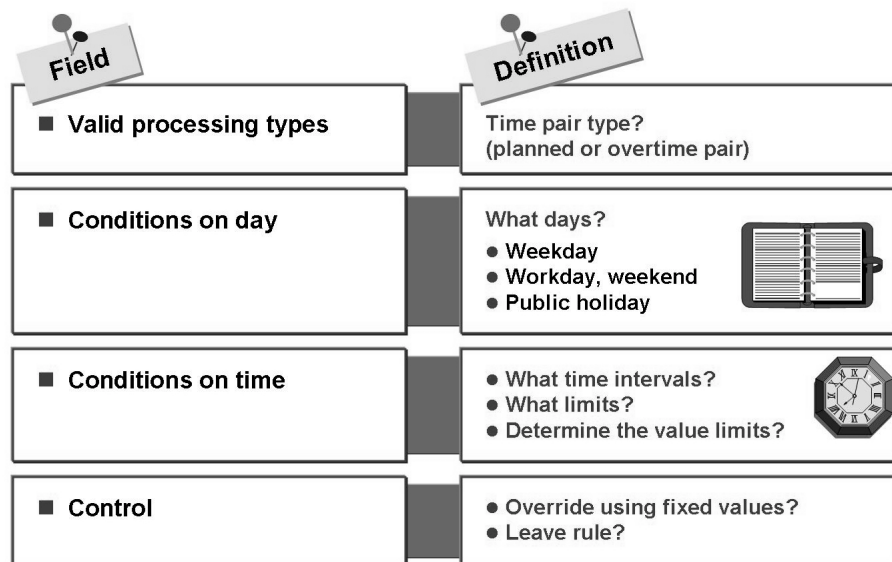


Figure 83: Time Wage Type Selection: Rule Structure (1)

Valid processing types:

These fields determine the processing types that entries in internal table TIP must have in order to generate the relevant wage type.

Conditions on day:

These fields check weekdays, public holidays, the day type, and the daily work schedule class.

Conditions on time:


These fields check time intervals as well as minimum and maximum hours.

Control:


This field allows you to specify a fixed value.

For the relevant entry to be selected, all the conditions must be fulfilled simultaneously.

For time wage type selection rules requiring start and end times to be observed, all the TIP entries to be valuated for the relevant day must denote clock times. If there are TIP entries without clock times, the time wage types that specify a time interval are not selected for that day.




Conditions time

■ Time interval:  20:00 - 30:00

When?

■ Value limits for number of hours:

Start? Minimum hours: Explicit Symb. S 

End? Maximum hours:

Time interval? Relevant processing types: S M

Interval: ☒

Figure 84: Time Wage Type Selection: Rule Structure (2)

Clock time interval:

The system only processes time pairs that fall within the time interval specified.

Maximum/minimum hours:

The employee must work a minimum/maximum number of hours. This entry can be explicit or can denote planned hours based on the daily work schedule.

The system determines limits using the relevant processing types. If you flag the field **Interval**, the system only processes the hours of the time pair that apply to the relevant time interval.

An entry in the **fixed value** field always overrides the hours specified by the time pair.

Rule Groups

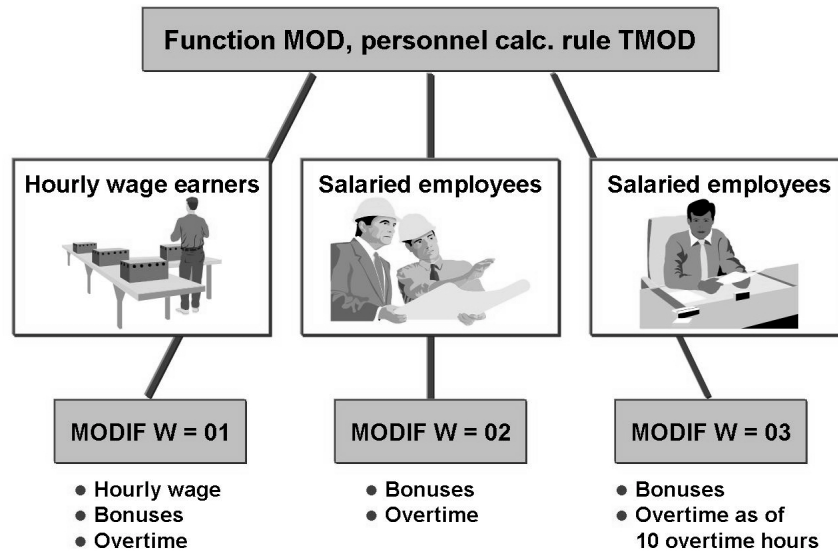


Figure 85: Time Wage Type Selection Rule Group

You can use the time wage type selection rule group to set specific regulations for time wage type selection according to an employee's organizational assignment.

You use function MOD in personnel calculation rule TMOD to determine which time wage type selection rule group the time evaluation driver should use to access the entries for an employee in the *Time Wage Type Selection* table.

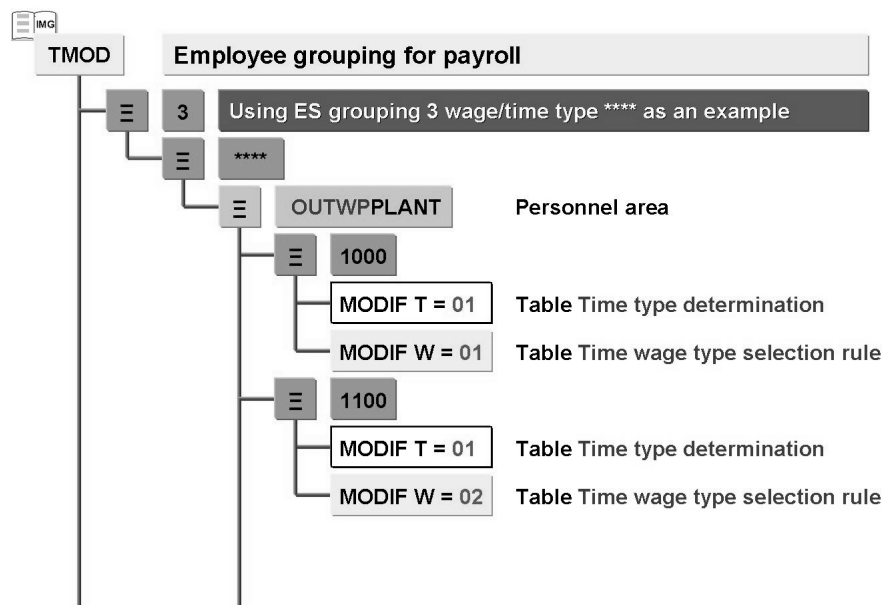


Figure 86: Grouping for Time Wage Type Selection Rule

In this step, you group together employees who need to be processed identically for time wage type selection. In this way, you determine which table entries the system references for which employee subgroup groupings during wage type generation. Operation **MODIF W** determines the employee groupings for accessing the *Time Wage Type Selection* table during payroll.

Decision operation **OUTWP** uses work center elements to determine the modifiers.



Set day grouping for time wage type selection

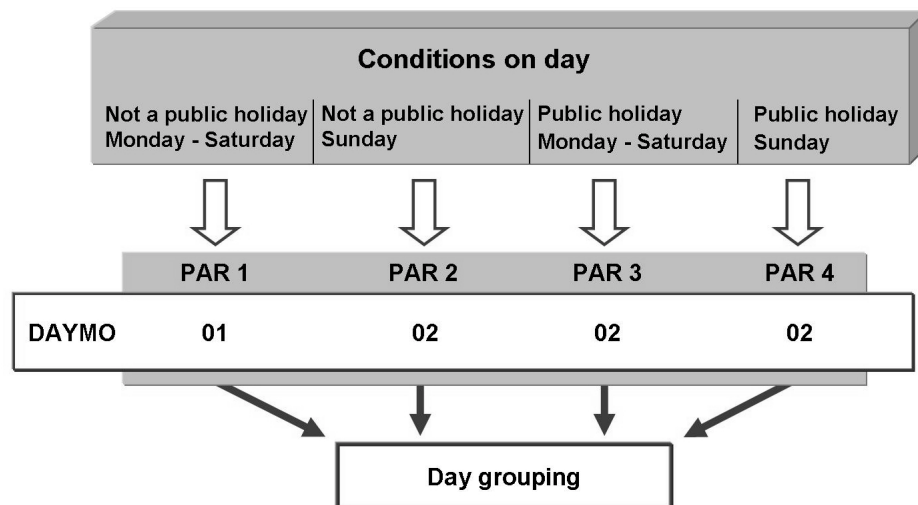


Figure 87: Time Wage Type Selection: Function DAYMO

Function **DAYMO** is used to determine which rules are referenced for time wage type selection for the relevant day. The function must be contained in the schema otherwise no rules are selected for time wage type selection.

If the four day categories are not sufficient for your purposes, it is also possible to set the day grouping in a personnel calculation rule using operation **MODIF D=xx**.

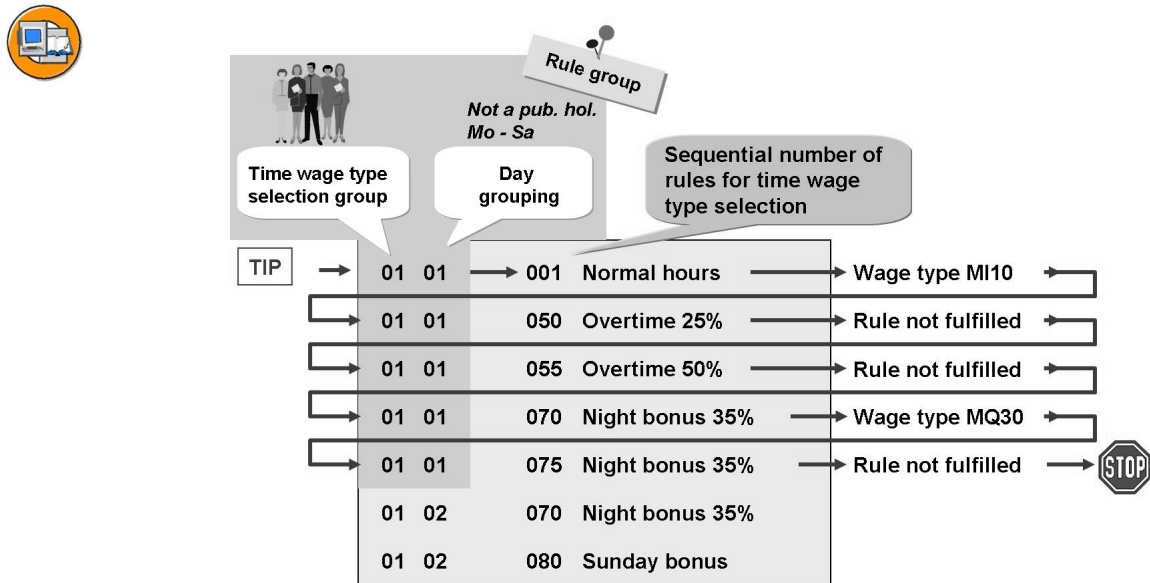


Figure 88: The Rule Group Principle Using Time Wage Type Selection

By assigning a wage type to groupings (time wage type selection rule group and day grouping), you can preselect the relevant wage types.

The sequential number should be chosen in increments of 10 so that you can add numbers later.

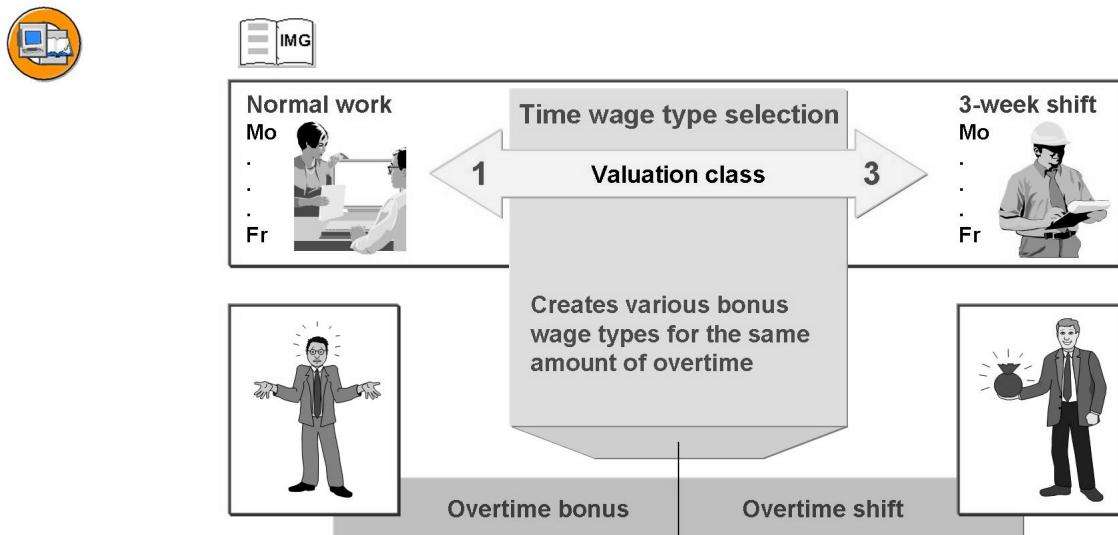


Figure 89: Valuation Classes for the Period Work Schedule

Valuation classes enable you to structure time wage type selection rules according to the period work schedule. For example, employees who work on a rotating shift can receive higher bonuses than employees who work on a normal shift.



Grouping...

Valid processing type
M _ _ _

Control
Fixed value

Conditions on day

Valuation class
0123456789
x

Conditions on time

Start	End	Min.	Symb.	Max.	Symb.	Relevant proc. types	Interv.
00:00	47:59						<input type="text"/>

M Overtime

16.00 18.00

Wage type for 2 hours overtime during shift

Figure 90: Example: Time Wage Type Selection Rule (1)

You want overtime for shift work to be remunerated at a higher rate than overtime for normal work. To do this, the system queries the valuation class of the period work schedule.



Grouping...

Valid processing types
M _ _ _

Control
Fixed value

Conditions on day

Weekdays
01234567
xx

Valuation class
0123456789
x

Conditions on time

Start	End	Min.	Symb.	Max.	Symb.	Relevant proc. types	Interv.
20:00	30:00						<input type="text"/>

M Overtime

22.00 22.20

Wage type for 2 hours overtime

Figure 91: Example: Time Wage Type Selection Rule (2)

In the **fixed value** field, you can specify how many hours (number) should be valued with a wage type if an employee's time pair meets all other conditions but overlaps with the time interval.

If an employee's overtime exceeds the fixed value, a subsequent rule must be defined in which the fixed value is configured as minimum hours.



Grouping...							
Valid processing types				Control			
S M _ _				Fixed value <input type="text"/>			
<u>Conditions on time</u>							
Start	End	Min.	Symb.	Max.	Symb.	Relevant proc. types	Interv. <input checked="" type="checkbox"/>
20:00	30:00	2,00				S M	

S	Plnd. Wrk.	M	Overtime
14.00	20.00	22.00	24.00

Wage type for hours from 10:00 p.m. to midnight

Figure 92: Example: Time Wage Type Selection Rule (3)

Only the hours that fall within the time interval of 08:00 p.m. to 06:00 a.m., the following day are taken into account. The hours from 02:00 p.m. to 08:00 p.m. are not taken into account. The minimum requirement of two hour's work (minimum hours = 2 hours) is calculated from 08:00 p.m. onwards, because the field **Count in specified interval only** has been activated. A wage type is generated for the time between 10:00 p.m. to midnight.



Grouping...

Valid processing types
S M _ _

Control
Fixed val. ☐

☐ Leave rule

☐ Exit time wage type selection

Time Conditions

Start	End	Min.	Symb.	Max.	Symb.	Relevant proc. types	Interv.
20:00	30:00	2.00				S M	<input type="checkbox"/>

S Planned work| Overtime

14.00 16.00 20.00 24.00

➔

Wage type for hours from
20.00 - 24.00

Figure 93: Example: Time Wage Type Selection Rule (4)

The employee has already fulfilled the minimum requirement of two hour's work (minimum hours = 2) by 16:00 in the planned working time as the system does not only count the hours in the time interval specified. A wage type is generated for the time between 20.00 and 24.00.

Leaving the time wage type valuation rule: when selecting time wage types, the system checks all the rules stored for all TIP entries and selects the relevant wage type, if the requirements are met. By activating this field, you cause the system to leave processing of the current rule, as soon as the wage type was selected for a TIP entry. The next rule continues time wage type selection.

Exiting time wage type selection: By activating this field, you cause the system to exit time wage type selection, as soon as the wage type was selected for a TIP entry. The subsequent rules are no longer included in time wage type selection.



Demonstration: Rule Structure

Purpose

To demonstrate the role of rule structure

System Data

System:

Client:

User ID:

Password:

Set up instructions:

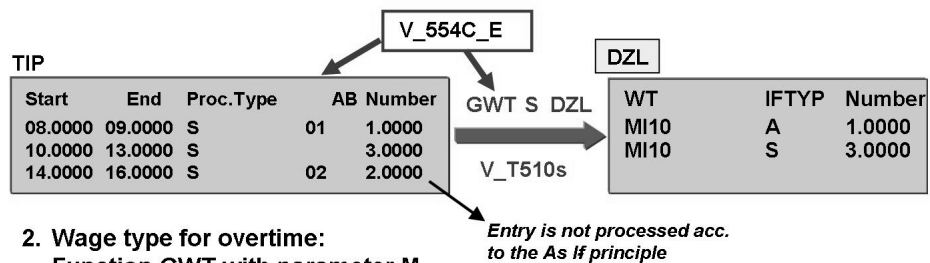
1. Execute the IMG activity Define Groupings (in Daily Processing Functions), copy rule TMOD to ZT00, and explain operation OUTWP. Since the copied personnel calculation rule cannot be entered into the original schema, the schema TC00 must be copied with the transaction PE01 to ZC00 in the other session. You should show this to the participants, as the IMG branches directly to the schema editor, where copying is not possible.

Time Wage Type Selection in Payroll



Select wage types for planned work and overtime

1. Wage type for planned work:
Function GWT with parameter S



2. Wage type for overtime:
Function GWT with parameter M

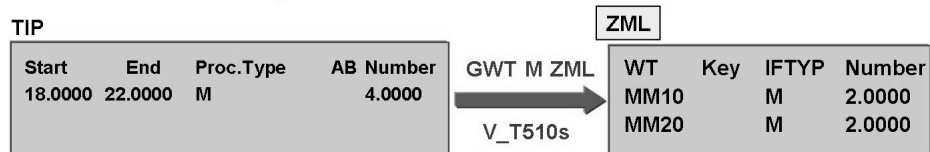


Figure 94: Function GWT: Select Time Wage Types

The **GWT** function generates time wage types for TIP entries according to the rules in the Time Wage Type Selection view (V_T510S).

Time wage type selection for planned work:

TIP entries with processing type **S** are processed in time wage type selection for planned time. For each time wage type selection rule for planned working time wage types, the system checks which TIP entries observe the rule. If the rule is observed, the relevant wage type is entered in the internal table DZL.

Time wage type selection for overtime:

All TIP entries with processing type **M** are processed in time wage type selection for overtime. For each time wage type selection rule for overtime wage types, the system checks which TIP entries observe the rule. If the rule is observed, the relevant wage type is entered in the internal table ZML.

Function GWT is used in time evaluation to select time wage types for all absences that are valued on the basis of the As If principle (the Wage type generation field in the *Absence Valuation Rule* view (V_554C_E) must be activated). This is carried out for absences whose processing type has been changed to S or absences which are evaluated using function GWT A. All other absences are valued in the gross part of payroll accounting.

There is detailed information on absence valuation in the section on Absences in the payroll section of the Implementation Guide (IMG).



<u>XT00</u>				<u>Time data processing INTERNATIONAL</u>
.				
IF	PDC			Is PDC active in period?
IMPRT	B2			Import cluster B2
PRINT	NP	ZL		Print table of time wage types
DAYPR	TC00	PDC		Day processing of time data
ELSE				PDC not active in period
DAYPR	TC00			Day processing of time data
ENDIF				Endif PDC

<u>TC00</u>				<u>Processing time data/Wage type selection</u>
.				
MOD	TMOD	GEN		Set modifiers
.				
DAYMO	01	02	02 02	Set day modifier
GWT		S	DZL	Time wage type selection for planned work
GWT		M	ZML	Time wage type selection for overtime
.				
PRINT	NP	DZL		Daily results: Wage types

Figure 95: Time Wage Type Selection in Schemas

If time recording has been activated for the personnel number for which payroll is being run, this indicates that time wage types already exist in cluster B2 of table ZL. This cluster is then imported, and the system processes days that have not yet been processed for the payroll period. The wage types that still have to be generated are formed according to the work schedule, which triggers retroactive accounting in the subsequent payroll period.

Function **DAYPR** calls subschema **TC00**, which processes time wage type selection for planned work and overtime on a daily basis.

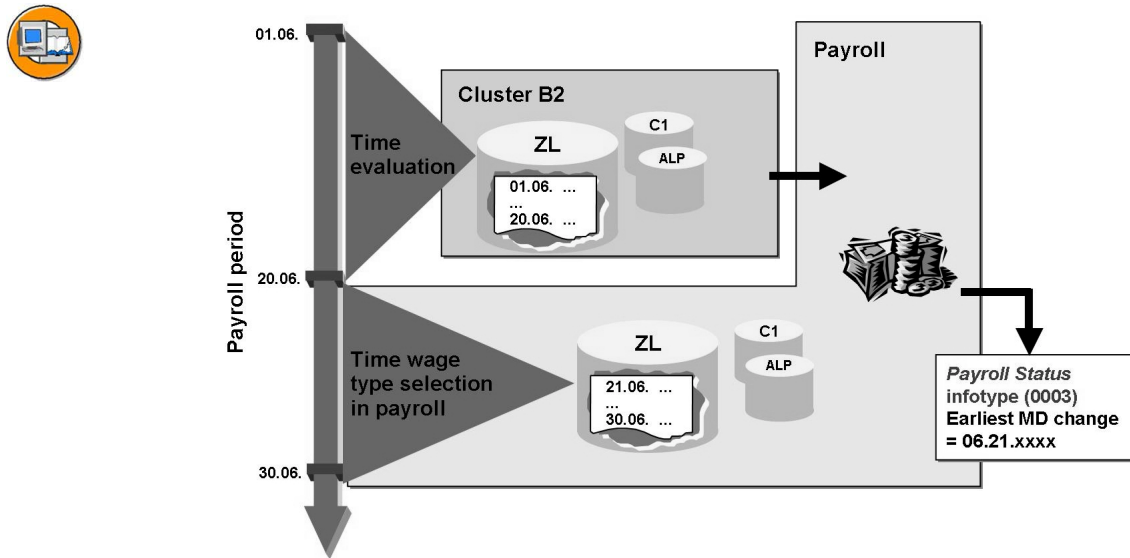


Figure 96: Time Evaluation and Payroll

The internal tables ZL, C1, and ALP are the interfaces between time evaluation and payroll.

ZL: Contains the time wage types

C1: Contains data relevant to cost assignments

ALP: Contains the data for a different payments

Table ZL: Contains the number of hours per time wage type and the amounts are determined in payroll.

If payroll runs before the end of the evaluation period, time evaluation can only transfer the time wage types created up to this time. For the remaining part of the payroll period, the payroll system uses the work schedule and the time management infotypes already available to generate time wage types for the non-evaluated interval.

When payroll generates time wage types, it sets retroactive accounting in the *Earliest Master Data Change* field in the *Payroll Status* infotype (0003). The precondition for this is that the employee is included in the time evaluation (*Time Management status* is not 0).



Demonstration: The rule group structure and function DAYMO

Purpose

To demonstrate the role of rule group structure and the use of function DAYMO

System Data**System:****Client:****User ID:****Password:****Set up instructions:**

1. In the IMG activity, call up Define Groupings in the Time Wage Type Selection Rule and show the function DAYMO. Do not change the standard values. Then, call up the activity Define Generating Instructions.
-



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Exercise 13: Generating Wage Types

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Adjust the personnel calculation rule TMOD to meet customer requirements
- Adjust subschema TC00 to meet customer requirements
- Define time wage type generation rules

Business Example

Until now, your company has paid overtime as employee remuneration information. However, your employees can now record overtime in the system themselves. You want to include the time pairs recorded for overtime as time wage types in the payroll run. In the table Time Wage Type Selection Rule, you want to create different rules for each of the payroll areas in your company.



Hint: Time wage types 3##1 to 3##4, which were previously entered in the system as employee remuneration information, must now be generated by the system on the basis of overtime time pairs. For this reason, the *Time Wage Type Selection Rule* table must include rules that are grouped together in a time wage type selection rule group for each payroll area. In this exercise, you create the time wage type selection rules for the payroll area to which you assigned your employee at the time of hiring.

Task 1:

1. First, you must define the groupings. In the IMG, make a copy of personnel calculation rule TMOD, and rename it **ZT##** (## = group number). Then, adjust personnel calculation rule ZT## by querying the payroll area in the decision operation. Set **MODIF W** to the value ww (ww = ## + 10) for your payroll area, and to the value 01 for the other payroll areas. Only make this change for employees in employee subgroup grouping 3 for the personnel calculation rule.

Task 2:

1. Since personnel calculation rule TMOD is accessed from subschema TC00, you must also make an adjustment here.

Continued on next page

Make a copy of the subschema, and rename it ZC##. In subschema ZC##, change the line that includes function MOD to access your version of the rule TMOD, ZT##.

Task 3:

1. Since subschema TC00 is called up from schema XT00, you must also make changes here. Change the relevant line in schema ZT## in which schema TC00 is accessed.



Note: Schema TC00 is called in two places with function DAYPR; time data is not processed with the time evaluation program because your company does not use time recording.

Task 4:

1. Enter the generation rules for the following wage types:

3##1	Overtime up to 2 hours
3##2	Overtime over 3 hours
3##3	Overtime on Sundays
3##4	Overtime on public holidays

Set the validity period for these rules from 01.01 of the current year to 12.31.9999. According to the collective agreement for the company, public holidays and Sundays last from 00:00 to 06:00 on the following day. Incorporate these time conditions into your rules as necessary.

Task 5:

1. Test the generation rules you have created by entering overtime for your employee on the following days in payroll period 05:

On a working day 18:00 - 21:00

On a Sunday 10:00 - 18:00

On a public holiday 10:00 - 17:00

Release payroll for period 05 and start the payroll run. Make sure you select the check box to display the log for time data processing. Check your result and confirm that your wage types 3##1 – 3##8 were generated correctly. Do not exit payroll.



Note: The derived wage types and valuation bases that you configured for the previous exercise are also used in this exercise.

Do not exit payroll for period 05:

Solution 13: Generating Wage Types

Task 1:

1. First, you must define the groupings. In the IMG, make a copy of personnel calculation rule TMOD, and rename it **ZT##** (## = group number). Then, adjust personnel calculation rule ZT## by querying the payroll area in the decision operation. Set **MODIF W** to the value ww ($ww = ## + 10$) for your

Continued on next page

payroll area, and to the value 01 for the other payroll areas. Only make this change for employees in employee subgroup grouping 3 for the personnel calculation rule.

- a) To determine the groupings for the time wage types selection rule table:

IMG→Payroll: International→Day Processing of Time Data→Day Processing Functions→Define Groupings

Choose the activity *Define Groupings*.



Note: The IMG automatically calls personnel calculation rule TMOD for processing. You will need to make a copy of personnel calculation rule ZT## so that you can modify it.

Select *Copy* and enter the following information:

From rule	TMOD
To rule	ZT##

Choose *Change* to edit your rule ZT##. In the Graphical Editor, open employee subgroup grouping 3 for Payroll. Open the structure until you see the operations **MODIF T=02** and **MODIF W=03**. Place your cursor on the first of these two operations and choose the icon *Select/Deselect* to select the operation. Repeat for the second operation. Push the Cut icon to store both operations in the buffer.

Move your cursor to the **** line. Select the *Create* icon, and choose *Sub-level*. Enter operation **OUTWPPAYSB** in the input box and press *Enter*. The system automatically determines that this is a decision operation and opens a field for the variable key value. Enter your payroll area (X1-X9, Y0-Y9, Z0-Z9, or ZA). Select *Enter*. The system automatically opens a new input box. Enter the default value ** and select *Enter*. You will again see a new input box. Select *Enter* again to clear this extra field.

Place your cursor on the field with your payroll area and select *Paste* to insert the cut operations **MODIF T=02** and **MODIF W=03**. Repeat this procedure for the field with **. In the processing branch for your payroll area, change the value for MODIF W to ww (ww = ## + 10). With the cursor on this operation, select the *Change Entry* icon. Confirm your entry by pressing the *Enter* button.



Note: Do not delete operation **MODIF T=02**. This default value provides the time types according to table T555Z *Time Type Determination*. Make sure to save your now fully modified rule.

Continued on next page

Task 2:

1. Since personnel calculation rule TMOD is accessed from subschema TC00, you must also make an adjustment here.

Make a copy of the subschema, and rename it ZC##. In subschema ZC##, change the line that includes function MOD to access your version of the rule TMOD, ZT##.

- a) To make a copy of schema TC00 for the required modifications:

IMG→Payroll: International→Day Processing of Time Data→Day Processing Functions→Time Wage Type Selection→Perform Time Wage Type Selection

Note: In Release 4.6, to make a copy of schema TC00 for the required modifications:

SAP Menu: Human Resources→Payroll→International→Tools→Customizing Tools→Schema

Select *Copy*, enter the following data in the popup, and press *Enter*:

From schema	TC00
To schema	ZC##

Choose *Change* to edit your subschema ZC##. Use the replication method outlined earlier in these exercises to make a direct copy of the line that accesses rule TMOD. Deactivate the original line and enter your rule ZT## in the active line. Save your subschema after this change.

Continued on next page

Task 3:

1. Since subschema TC00 is called up from schema XT00, you must also make changes here. Change the relevant line in schema ZT## in which schema TC00 is accessed.



Note: Schema TC00 is called in two places with function DAYPR; time data is not processed with the time evaluation program because your company does not use time recording.

- a) To adjust your copy of subschema XT00 (ZT##) so that it now calls your new schema for day processing of time data (ZC##):

Return to the initial screen of the schema editor and specify ZT## as the schema to be edited. Choose Change and use the method described above to create a copy of the line **DAYPR TC00**. Deactivate the original line and enter your schema ZC## in the active line.



Note: You must use ZC## in place of TC00 on the line DAYPR TC00, not the line DAYPR TC00 PDC.

Subschema TC00 is only called through the line DAYPR TC00 PDC if the employee's time management status has a value of 1, 2, or 9 (in this case, the employee's time data will be processed by the program RPTIME00).

Task 4:

1. Enter the generation rules for the following wage types:

3##1	Overtime up to 2 hours
3##2	Overtime over 3 hours
3##3	Overtime on Sundays
3##4	Overtime on public holidays

Set the validity period for these rules from 01.01 of the current year to 12.31.9999. According to the collective agreement for the company, public holidays and Sundays last from 00:00 to 06:00 on the following day. Incorporate these time conditions into your rules as necessary.

- a) To create generation rules for your wage types:

IMG→Payroll: International→Day Processing of Time Data→Day Processing Functions→Time Wage Type Selection→Define Generation Rules

Choose the *Define Generation Rules* activity.

Continued on next page

Enter the following 4 time wage type selection rules (rules are numbered only to help distinguish them in these solutions). Select the *New Entries* button to access the detailed view to enter the rules.

Rule 1: Wage type for the first two hours of overtime on a working day

Time wage type selection rule group:	ww (##+ 10)
Day grouping:	01
Sequence number:	010
Wage type:	3nn1
Start date:	01.01. current year
End date:	12.31.9999
Valid processing types:	M
Week days:	1 2 3 4 5 6 7 x x x x x x
Public holiday class previous day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Public holiday class current day:	b 1 2 3 4 5 6 7 8 9 x
Public holiday class next day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Valuation class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Daily work schedule class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Day type:	b 1 2 3 4 5 6 7 8 9 x x
Maximum:	2.00
Relevant processing types:	M

Continued on next page

Rule 2: Wage type for overtime as of the third hour on working days

Time wage type selection rule group:	ww
Day grouping:	01
Sequence number:	020
Wage type:	3nn2
Start date:	01.01. current year
End date:	12.31.9999
Valid processing types:	M
Week days:	1 2 3 4 5 6 7 x x x x x x
Public holiday class previous day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x x
Public holiday class current day:	b 1 2 3 4 5 6 7 8 9 x
Public holiday class next day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x x
Valuation class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x x
Daily work schedule class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x x
Day type:	b 1 2 3 4 5 6 7 8 9 x x
Maximum:	2.00
Relevant processing types:	M

Continued on next page

Rule 3: Wage type for overtime on Sundays

Time wage type selection rule group:	ww
Day grouping:	02
Sequence number:	010
Wage type:	3nn3
Start date:	01.01. current year
End date:	12.31.9999
Valid processing types:	M
Week days:	1 2 3 4 5 6 7 x
Public holiday class previous day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Public holiday class current day:	b 1 2 3 4 5 6 7 8 9 x
Public holiday class next day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Valuation class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Daily work schedule class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Day type:	b 1 2 3 4 5 6 7 8 9 x x
Start:	00:00
End:	30:00

Continued on next page

Rule 4: Wage type for overtime on public holidays

Time wage type selection rule group:	ww
Day grouping:	02
Sequence number:	020
Wage type:	3nn4
Start date:	01.01. current year
End date:	12.31.9999
Valid processing types:	M
Week days:	1 2 3 4 5 6 7 x x x x x x x
Public holiday class previous day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Public holiday class current day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Public holiday class next day:	b 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Valuation class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Daily work schedule class:	0 1 2 3 4 5 6 7 8 9 x x x x x x x x x
Day type:	b 1 2 3 4 5 6 7 8 9 x x
Start:	00:00
End:	30:00

Task 5:

- Test the generation rules you have created by entering overtime for your employee on the following days in payroll period 05:
 On a working day 18:00 - 21:00
 On a Sunday 10:00 - 18:00
 On a public holiday 10:00 - 17:00

Continued on next page

Release payroll for period 05 and start the payroll run. Make sure you select the check box to display the log for time data processing. Check your result and confirm that your wage types 3##1 – 3##8 were generated correctly. Do not exit payroll.



Note: The derived wage types and valuation bases that you configured for the previous exercise are also used in this exercise.

Do not exit payroll for period 05:

- a) To test your time wage type selection rules, choose:

SAP Menu: Human Resources→Personnel Management→Administration→Maintain HR Master Data

Choose the infotype menu tab *Working times*.

Choose the infotype *Overtime*, enter dates in period 05 (see days and times above) and choose *Create*. Enter the hours specified in the **exercises** for the appropriate day. Note: you must create an infotype 2005 record for each day that contains overtime. (see task 5 above)

SAP Menu: Human Resources→Payroll→International→Payroll→Release Payroll (for period 05)

SAP Menu: Human Resources→Payroll→International→Payroll→Start Payroll

Start payroll and select your variant. Before running payroll, select the field *Also display time data processing log* for a detailed log. Run payroll for period 05 and check whether your wage types 3##1-3##4 have been created. Review the detail display of the log section *Processing of time data*, and open the log at the function 'ELSE' which follows the function 'IF PDC'. At this point, you see function DAYPR with the day processing detailed log. Open the processing section and double-click on *Jump to detailed log of DAYPR*. You can review the selection of wage types for each day with overtime within the GWT M ZML log section. Alternatively, you may also check your wage type selection result by going to rule X015 directly in the *Processing of time data* section of the log.

Do not exit payroll for period 05.



Lesson Summary

You should now be able to:

- Define time wage type selection rules
- Use the DAYMO function
- Use the GWT function
- Identify the interface between time valuation and payroll



Unit Summary

You should now be able to:

- Describe time wage type selection
- Define time pairs
- Define time wage type selection rules
- Use the DAYMO function
- Use the GWT function
- Identify the interface between time valuation and payroll



Test Your Knowledge

1. Time wage type selection occurs in subschema _____.
Fill in the blanks to complete the sentence.
2. For employees who do not use time recording, actual times for processing type M can also be recorded using the _____ infotype.
Fill in the blanks to complete the sentence.
3. While using the rule structure with conditions time, if you flag the _____ field, the system only processes the hours of the time pair that apply to the relevant time period.
Fill in the blanks to complete the sentence.
4. What happens when function DAYMO is not contained in the schema?

5. Function GWT is used in time valuation to select time wage types for all absences, which are valued on the basis of the As If principle.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False



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Answers

1. Time wage type selection occurs in subschema TC00.

Answer: TC00

2. For employees who do not use time recording, actual times for processing type M can also be recorded using the Overtime infotype.

Answer: Overtime

3. While using the rule structure with conditions time, if you flag the Interval field, the system only processes the hours of the time pair that apply to the relevant time period.

Answer: Interval

4. What happens when function DAYMO is not contained in the schema?

Answer: If the function DAYMO is not contained in the schema, no rules are selected for time wage type selection.

5. Function GWT is used in time valuation to select time wage types for all absences, which are valued on the basis of the As If principle.

Answer: True

Function GWT is used in time valuation to select time wage types for all absences, which are valued on the basis of the As If principle.

Unit 10



Average Processing



On account of the complexity involved in calculating average values, participants may experience difficulties with the contents of this unit. This is due to the fact that the valuation of wage types and, often, the valuation of absences are involved in the calculation of these values. Consequently, material already covered in other units is reviewed and incorporated into this new topic.

Unit Overview

This unit talks about remuneration using averages. The unit discusses concepts, such as elements of average processing and calculating average values. The unit also discusses the various types of average calculation rules, such as relevancy rules, cumulation rules, final processing and comparison rules, and adjustment rules. Finally, the unit shows how to process averages in schema.



Unit Objectives

After completing this unit, you will be able to:

- Valuate time wage types
- Identify the elements of average processing
- Calculate average values
- Use calculation rules
- Use relevancy rules
- Use cumulation rules
- Use final processing and comparison rules
- Use adjustment rules

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Lesson: Remuneration Using Averages



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Lesson Duration: 30 Minutes

Lesson Overview

The focus of this lesson is on the calculation of average values for wage types. The lesson also discusses the average calculation process by listing the elements of average processing.



Lesson Objectives

After completing this lesson, you will be able to:

- Valuate time wage types
- Identify the elements of average processing
- Calculate average values



Time Wage Type Valuation

Explain processing in rule X015, simultaneously show the calculation rule in the system.

Average Remunerations

This topic provides an example for situations in which a payment with average values is possible. At the same time, it also asks how this can be done.

Average Processing Components

Use the elements named to introduce the following contents of the unit.

Creating Averages

Explain the principle of average processing in payroll.

The old procedure only permits average calculation for wage types from the previous periods. In the new procedure, it is also possible to create average values for wage types from the current period.

Creating Average Calculation Bases

Explain that the wage types /2nn are created and saved in every payroll period in which overtime is remunerated. You can also create average bases for the new procedure from partial period parameters. As the details of partial period parameters are only discussed in the Factoring unit, you should only mention the parameters SDIVP, ADIVP, and KDIVP, as their values can be understood without further explanation.

n - 3 n - 2 n - 1 n = current periodx

_____ x _____ x _____ x _____

/201 /201 /201 ---- Absence

Averages: Calculating Vacation Bonus

This topic contains a problem, which is to be resolved.

Triggering Average Calculation

For absence valuation, the participants have assigned a constant valuation to wage type 40nn. You should change this now. In other words, the wage type should be remunerated with the amount that was calculated as the average overtime remuneration for the employee in the last three months.

In Release 4.6, it is possible to use both the new and the old average calculation procedure that means it is possible to use the old procedure for a wage type and to use the new one for valuation. If the wage type has both a specification in processing class 15 and is assigned to the new average calculation procedure in the view T51AV_P, the new procedure takes priority.

Assigning Average Valuation to a Primary Wage Type

Call and explain the IMG activity. As you have not created an average calculation rule yet, it is not possible to assign wage type 40nn. At this point, the instructor should show the participants the activity of the same name, so that the participants have seen processing class 15 as mentioned in the previous topic at least once.

Business Example

Your company pays remuneration elements, with amounts calculated from an average value of the amounts from different wage types. Your company also pays a daily vacation bonus. This should be calculated as the average of the overtime pay for the last three months.

Introducing Average Processing

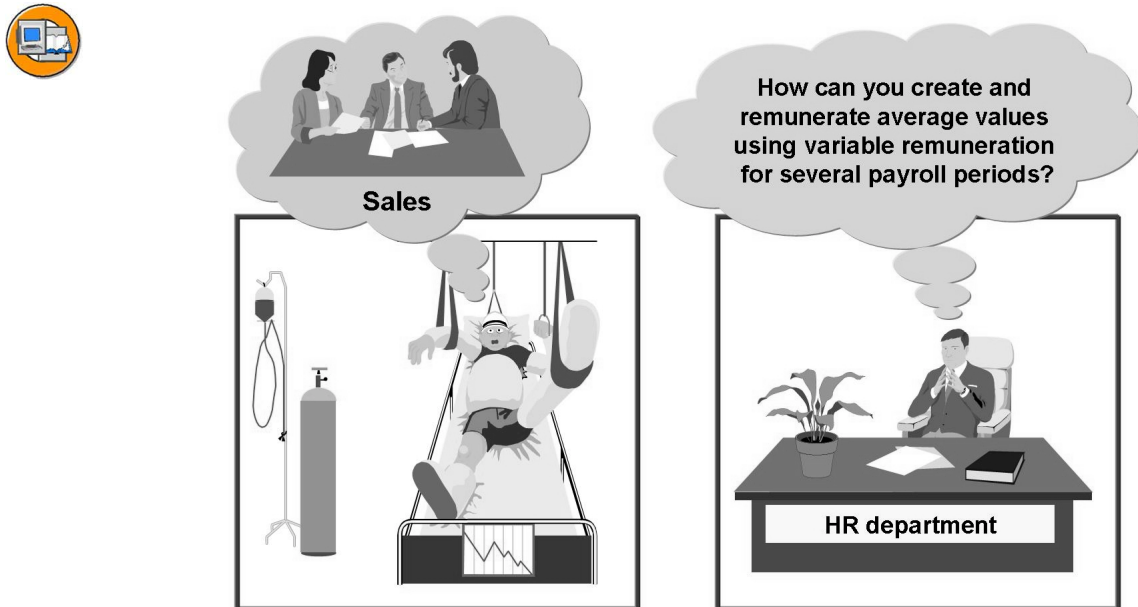


Figure 97: Remuneration Using Averages

If an employee is sick or is on leave, certain remuneration elements are reduced for the employee in question (for example, commission, bonuses for piecework, and overtime). Hence, the employer often pays the average values of variable remuneration.

You can also use the average calculation procedure in HR Payroll for different purposes. For example, you can calculate average values for fixed payments.

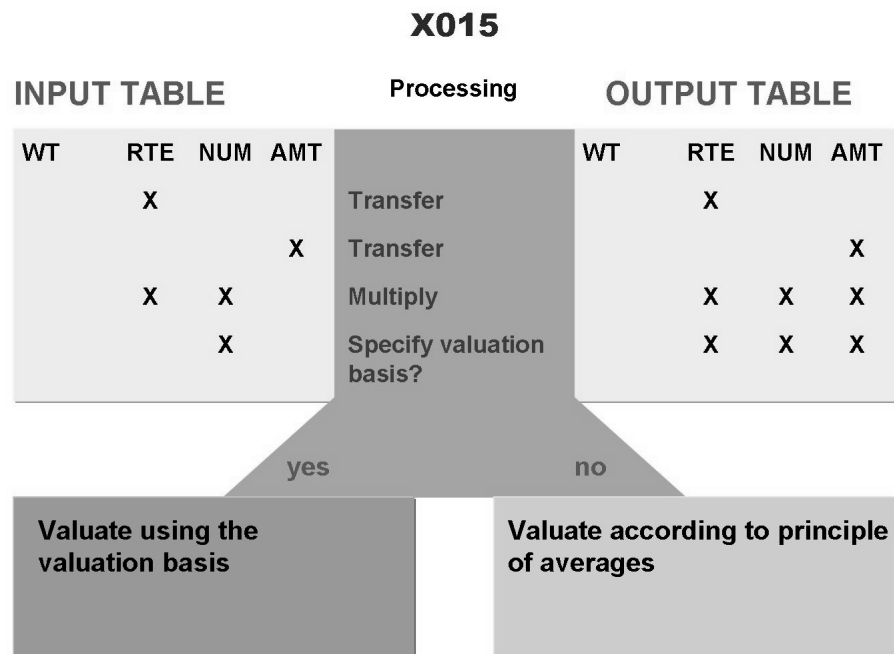


Figure 98: Valuating Time Wage Types

In personnel calculation rule X015, the system checks to see if the IT table contains time wage types that have not yet been valuated. To do so, the system checks the contents of the value fields AMT (amount), NUM (number), and RTE (rate).

If the RTE or AMT field contains an amount, the wage type is transferred to the internal table OT.

If the AMT field is empty, the NUM field contains a number and the RTE field a rate, then the NUM field is multiplied by the RTE field. The result is stored in the amount field, and the wage type transferred to table OT.

If only the NUM field contains an entry because only a number (for example, hours) was entered, and if the AMT and the RTE fields are both empty, the system queries whether a valuation basis has been specified for the wage type. If this is the case, the wage type is valuated using the valuation basis specified.

If no valuation basis is specified, valuation takes place according to the principle of averages if an average valuation is assigned to the wage type. If this is not the case, the wage type is not valuated using a monetary value.

Elements of Average Processing



- Retrieve average bases
- Determine the previous periods required
- Perform a relevancy test for each period
- Cumulate the average bases from the relevant previous periods
- Include changes in pay
- Calculate averages

Collective agreements often contain rules that state that in the case of absences, an average remuneration calculated from previous months must be paid. To value absences according to the principle of averages, the following questions must first be answered:

How many periods are used to create an average?

Can a period be irrelevant to the creation of averages? (For example, if an employee takes unpaid leave throughout the whole payroll period.)

In such cases, what is the maximum number of periods that should be used to create averages?

What triggers a payment based on an average value (for example, an absence)?

What is the formula used to calculate the average value?

What value is used for new employees in the first payroll period, if there are no previous values available for calculating the average value?

Should an average value be adjusted if remuneration changes (for example, after a standard pay increase)?

Which wage types are included in an average value?

Calculating Average Values

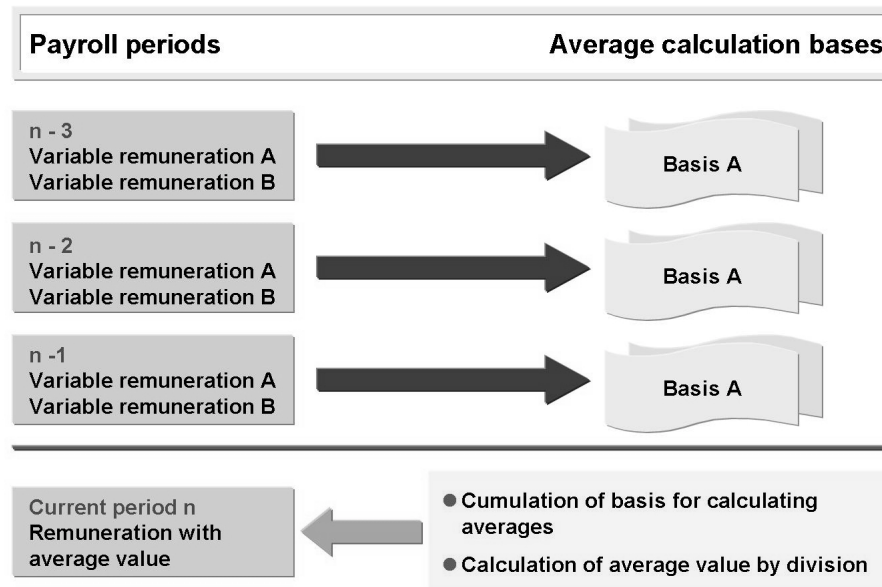


Figure 99: Creating Averages

Remuneration elements included in averages are grouped into average bases for the relevant payroll period and stored together with the payroll results.

In a payroll period, in which a wage type should be remunerated with an average value, the average bases for the relevant previous periods are first cumulated. The average value is then calculated (for example, by dividing the total by the number of previous periods). The resulting value is then included in the employee's remuneration.



Assigning Primary Wage Types to Bases for Calculating Average Values								
WT	AV basis	Start date	End date	RTE	%	NUM	%	AMT %
M110	/201	01.01.2003	12.31.9999	✓	100	✓	100	100

Assigning partial period parameters to bases for calculating average values					
Part.Per. Par.	Av.basis	Start date	End date	Percent	
TASOLL	/205	01.01.2003	31.12.9999	100,00	

Figure 100: Creating Bases for Calculating Average Values

In this step, you specify which primary wage types and which partial period parameters should be included in which average calculation basis. The secondary wage types /201 to /232 are available as average calculation bases.

Create various average bases, for example, all overtime remuneration, all overtime bonuses, all work on public holidays, and so on.

Specify which primary wage type should be included in which average basis. Specify which wage type field (RTE, NUM, or AMT) should be used with which percentage.

You can include partial period parameters in the average calculation bases. As the system always reads the value of the Number field from the partial period parameters, you only specify the percentage here.

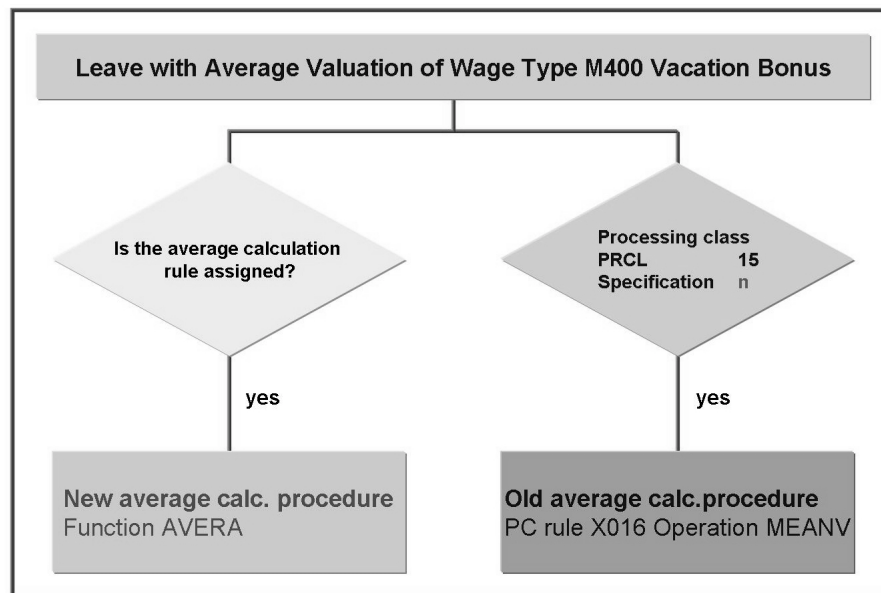


Figure 101: Triggering the Valuation of Averages

If a valuation basis is not been specified, but a specification has been assigned to processing class 15, the wage type is valued according to the **old** principle of averages. In this case, the system accesses personnel calculation rule X016 (Special processing for the valuation of time wage types).

If you assign an average calculation rule to a wage type in the view V_T51AV_P, it is valued with the monetary value calculated by the **new** average calculation procedure.

If processing class 15 is filled with a specification and is also assigned an average calculation rule for a wage type, the wage type is valued using the **new** average calculation procedure (if you use the standard schema).



Assigning Wage Types to Average Calculation Rules					
WT	Text	Start date	End date	Av.rule	Av. rule text
4000	Vacation bonus	01.01.2003	31.12.9999	ZAV1	Averages 1
7520	Average	01.01.1999	31.12.9999	ZAV2	Averages 2

Figure 102: Assigning Average Valuation to a Primary Wage Type

In this step, you must maintain all primary wage types that are to be valuated using an average. These wage types are created in payroll either after they were generated from the attendances and absences, or after you have entered them online, for example, in the infotypes 0015 or 2010.

Specify which wage type should be evaluated according to which average calculation rule.



Demonstration: Creating Average Calculation Bases

Purpose

To demonstrate how to calculate average calculation bases

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. The instructor should configure his wage types 3001 - 3008 in such a way that the amounts for basic pay 3001 - 3004 are added up in wage type /201 and the bonuses 3005 - 3008 are added up in wage types /201 and /202.
-



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Exercise 14: Creating Average Calculation Bases

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Create average calculation bases from overtime remuneration

Business Example

Your company decides to change the provision for the vacation bonus. Instead of a fixed amount per leave day, the average of all remuneration for overtime over the past three payroll periods will be paid for each leave day.

Task 1:

1. To create the average calculation bases, you must flag the following time and bonus wage types so they are included in the appropriate average calculation bases as described below:

3##1	Overtime up to 2 hrs
3##2	Overtime over 3 hrs
3##3	Overtime on Sundays
3##4	Overtime on public holidays
3##5	Bonus 25%
3##6	Bonus 50%
3##7	Bonus 75%
3##8	Bonus 100%

The amount of wage types 3##1 – 3##4 should be added at a rate of 100% to the basis for calculation average value /201 and the amount of bonus wage types 3##5 – 3##8 should be added at a rate of 100% to /202. This ensures that /201 contains all basic overtime remuneration, and /202 contains the bonuses for the calculation of averages.

Continued on next page

Task 2:

1. Run payroll for period 05, together with a forced retroactive accounting run for the period 02. Check that the /201 and /202 wage types have been created as appropriate. If your results are correct for period 05, exit payroll.



Hint: The **validity period of the Customizing entries** for the average calculation procedure is 01.01 of the relevant calendar year until 12.31.9999.

Solution 14: Creating Average Calculation Bases

Task 1:

- To create the average calculation bases, you must flag the following time and bonus wage types so they are included in the appropriate average calculation bases as described below:

3##1	Overtime up to 2 hrs
3##2	Overtime over 3 hrs
3##3	Overtime on Sundays
3##4	Overtime on public holidays
3##5	Bonus 25%
3##6	Bonus 50%
3##7	Bonus 75%
3##8	Bonus 100%

The amount of wage types 3##1 – 3##4 should be added at a rate of 100% to the basis for calculation average value /201 and the amount of bonus wage types 3##5 – 3##8 should be added at a rate of 100% to /202. This ensures that /201 contains all basic overtime remuneration, and /202 contains the bonuses for the calculation of averages.

- To identify your time wage types, and the bonuses derived from them, as relevant for average calculation:

IMG→Payroll: International→Time Wage Type Valuation→New Averages→Create Bases for Calculating Average Values

Choose the activity *Form Average Bases from Wage Types*.

Enter your wage types 3##1 through 3##4 in the table with the average calculation basis /201. Enter 01.01 of the current year through 12.31.9999 as the validity period. Select the check box for amount and enter 100.00 in the Percent field.



Note: You will need a separate entry in the table for each overtime wage type.

Repeat the above table entries for wage types 3##5 through 3##8, but assign them the average calculation basis /202 instead of /201.

Continued on next page

Task 2:

1. Run payroll for period 05, together with a forced retroactive accounting run for the period 02. Check that the /201 and /202 wage types have been created as appropriate. If your results are correct for period 05, exit payroll.



Hint: The **validity period of the Customizing entries** for the average calculation procedure is 01.01 of the relevant calendar year until 12.31.9999.

- a) To run payroll for period 05 with forced retroactive accounting back to payroll period 02, choose:

SAP Menu: Human Resources→Payroll→International→Payroll→Start Payroll

You do not have to release payroll because you did not exit payroll for period 05. Select your variant and enter 02.01 of the current year in the Forced Retro Accounting as of field and run payroll.

To check that wage types /201 and /202 were created, review the log for each payroll period. Proceed as follows: Open the payroll log to the Final Processing block by choosing *ADDCU→Output→RT*. The total of the amounts of wage types 3##1, 3##2, 3##3, and 3##4 should equal the amount in /201. The total of the amounts of wage types 3##5, 3##6, 3##7, and 3##8 should equal the amount in /202.

If your results are correct, exit payroll for period 05.

SAP Menu: Human Resources→Payroll→International→Payroll→Exit Payroll (for period 05).



Lesson Summary

You should now be able to:

- Valuate time wage types
- Identify the elements of average processing
- Calculate average values

Lesson: Average Calculation Rules



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Lesson Duration: 30 Minutes

Lesson Overview

This lesson discusses the various types of rules for averages. This includes rules, such as calculation, relevancy, cumulation, final processing, comparison, and adjustment.



Lesson Objectives

After completing this lesson, you will be able to:

- Use calculation rules
- Use relevancy rules
- Use cumulation rules
- Use final processing and comparison rules
- Use adjustment rules



Calculation Rules for Averages

Introduce the elements of an average calculation rule, without going into the details. At this point, you will first deal with the objective of the eight Customizing steps in this IMG activity before the individual elements of such a rule are dealt with in the following procedure.

Relevancy Rule for Average Calculation

Explain the possibilities within the relevancy rule.

Exclude the Relevancy of Off-Cycle Reasons

This activity is only necessary for countries that perform Off-Cycle Payroll. If this is the case, the instructor should discuss this part of the relevancy rule.

Cumulation Rules for Average Calculation Bases

The instructor now creates the cumulation rule ZC00 for the wage types /201 and /202 with positive cumulation of the AMT field and explains the rule.

Adjusting Average Formula

Explain table MV and its contents. You cannot use the standard rule X018 as the overtime wage types 3nn1 - 3nn8 are only cumulated with the amount (AMT) in the wage types /201 and /202, as the rule divides the cumulated amounts by the cumulated hours, resulting in an average hourly rate for overtime. The task is, however, that the average overtime remuneration per day should be paid in the last three payroll periods for each leave day. For the calculation, you should use a direct value with the flat-rate number of workdays in three payroll periods. The amount of this flat-rate value depends on the length of the payroll period and must

be calculated by the instructor. The instructor now copies rule X018 to the name Z800 and, with the participants and the help of the operation documentation, works out how the rule must be modified in order to solve the task.

Final Processing Rules and Comparison Rules

You now explain the final processing rule and create rule ZE00. You should discuss the comparison rule after the exercise.

Adjustment Rules

You now explain the options within the adjustment rule. At the same time, you can discuss the contents of Creating Adjustment Rules (3) from the Appendix. Then, create the rule ZJ00, increase wage type 5000 for your employee, and perform payroll calculation for period 06 a second time.



Processing Averages in a Schema

Showing the relevant areas in the schema XT00 helps the participants to put the processing steps covered up to now in order in the payroll procedure.

Business Example

Your company pays remuneration elements, with amounts calculated from an average value of the amounts from different wage types. Also, your company pays a daily vacation bonus. This should be calculated as the average of the overtime pay for the last three months.

Calculation Rules

Creating Calculation Rules for Averages

Av.rule	Text	Valid from	End date
ZAV1	Averages 1 . .	01.01.1999	12.31.2005
ZAV2			

A = The value is frozen for the length of the absence
1 = The value is frozen for the calendar year (01.01-12.31)
 ...

Rel.R.	Cumul.RFProc.	Comp.R.	rel.P.	TU	Max.P.	TU	current freeze	WT	Hourly AV
ZREL	ZCU1	ZEND	ZCOM	3	1	6	1 ✓	A	

1 = Calendar month
3 = Calendar weeks (in acc. with feature LDAYW)
5 = Rolling month

Figure 103: Calculation Rules for Averages

Create the calculation rules using the previously defined relevancy rules, cumulation rules, final processing rules, and comparison rules.

Specify from how many previous periods the relevant average periods should be selected, and if the current period should be included. Select a time unit for the relevant average periods.

Specify if the calculated average value should be frozen. The rate is then stored in the **AVERAGE** table in the payroll results. For **example**, in the case of an absence covering several payroll periods, the calculated average value should be used throughout, or an average value that was calculated in the first payroll period of the year should be used in all the payroll periods in the year.

If you want to use a relevancy test to determine the relevant period, you must enter the maximum number of relevant periods and the time unit you require.

If it should be possible to pay the employee a definite amount instead of the calculated value, enter the wage type you wish to use for this purpose.

You can specify which weekday should be the last day in a calendar week with the help of feature **LDAYW**. If you want to change the feature, please consider that this will also affect Time Management.

You can use field **Hourly Average**, for example, to create an average for an employee of his or her overtime for the last three months. The system calculates this average and places the value calculated in the *Number* field.

Relevancy Rules

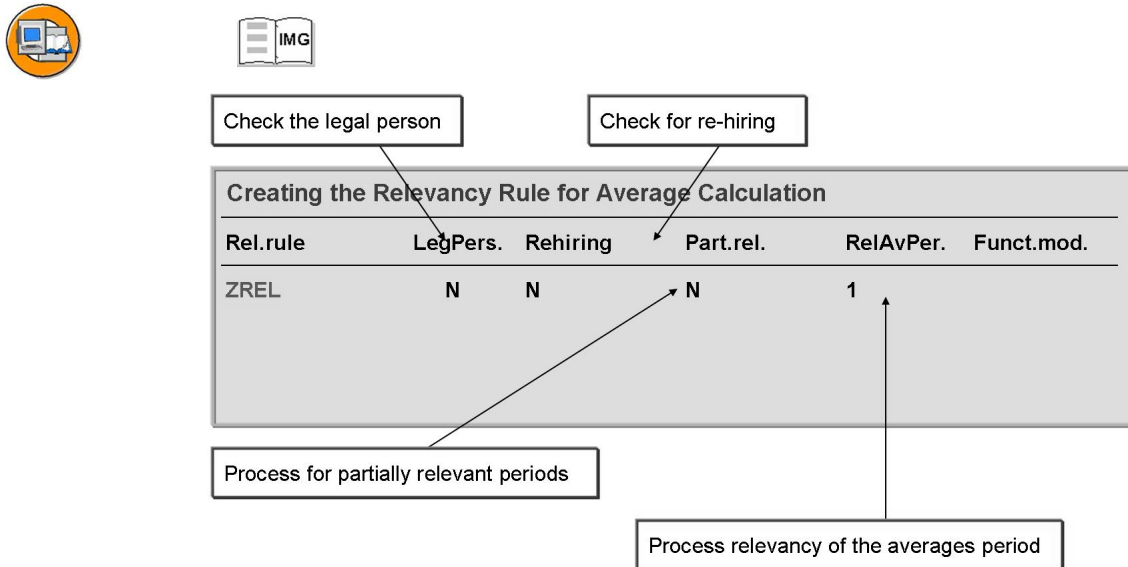


Figure 104: Relevancy Rule for Average Calculation

Here, you specify whether an average period should be relevant or should not be relevant for the calculation of averages under the conditions specified. You can use any four-digit sequence of characters starting with the letter Z or a number between 0 and 9 as a name range.

If you do not use a relevancy rule, the system uses all the average periods for average calculation.

Define processing of the relevancy test when the legal person changes: Check (Y) or no check (N).

Define processing of the relevancy test when the employee is rehired: Check (Y) or no check (N).

Define processing of the relevancy test for partially relevant periods: No check (N), only take the results that do not overlap into consideration (C) or take all the results into consideration (A).

Define processing of the period's relevancy: Average period is relevant if a result (1) or if all results (A) are relevant.

If you perform a relevancy test with a function module, you specify its name.



Excluding the Relevancy of Off-Cycle Reasons			
Rel.rule	Relevancy rule text	OC-reason	Description
ZREL	Rel.test for incentive wages	0001	Holiday bonus

Figure 105: Excluding the Relevancy of Off-Cycle Reasons

If you do not use an Off-Cycle Payroll, you do not need to make these settings.

Otherwise, you specify which Off-Cycle payroll runs should **no longer** be taken into consideration.

Cumulation Rules



Cumulation Rules for Average Bases							
Cum.rule	Av.basis	Valid from	End date	RTE + AR	NUM + AR	AMT + AR	Factor.
ZCU1	/201	01.01.2003	12.31.9999		✓	✓ + ZADJ	
ZCU1	/202	01.01.2003	12.31.9999		✓	✓ + ZADJ	

Average basis to be cumulated

Field to be cumulated
Cumulation type (+ or -)
Multiplication with the
adjustment factor from
the adjustment rule

Processing for periods to be partially cumulated
F = Factoring according to calendar days
S = Use WPBP split (Error when none exist)
N = Use total value

Figure 106: Cumulation Rules for Average Bases

In the cumulation rules, specify which average value calculation basis wage types /2nn should be used. When doing so, you determine which field (RTE, NUM, or AMT) should be used to cumulate the wage types and if the cumulation should be positive (+) or negative (-). If you do not make any entries, the relevant field is not cumulated.

If you have created adjustment rules and these should be used when cumulating, enter the adjustment rule required for every field.

Modifying Average Formulas

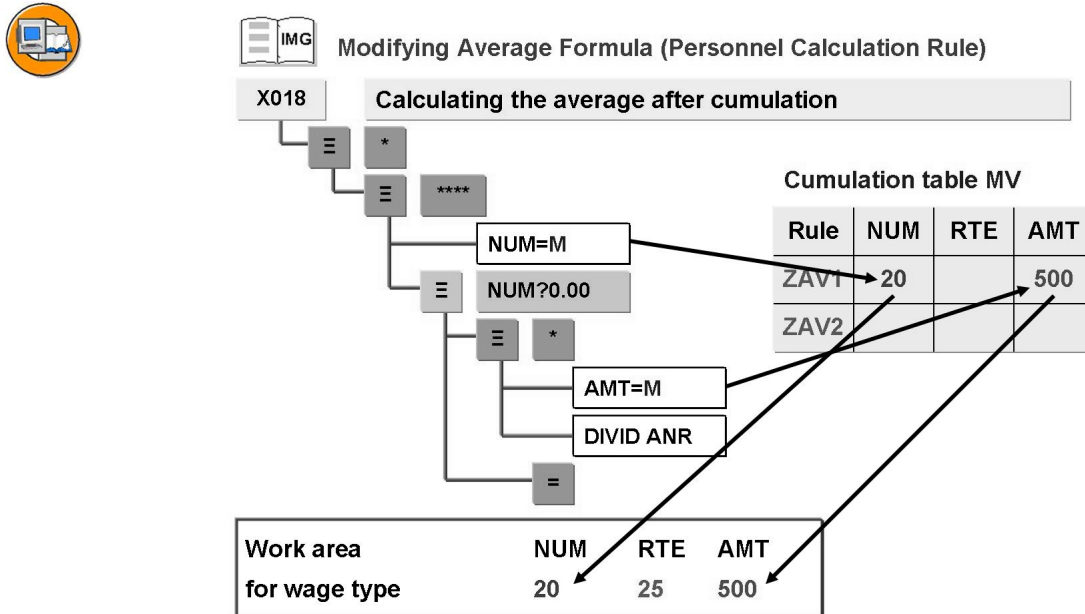


Figure 107: Modifying Average Formulas

An average calculation must result in the *Rate* (RTE) field containing a valuation basis. The formula used to calculate this value is included in personnel calculation rule X018.

The internal table MV contains the cumulations for averages.

Standard rule X018 uses the formula amount/number to calculate hourly rates.

Final Processing and Comparison Rules



Final Processing Rules for Averages			
F.process.	Calc.rule	Short description	
ZEND	Z018	Divide amount by the standard workdays	

Creating Comparison Rule for Average Calculation			
Comp.rule	Wage type	Field	Comparison
ZCOM	4711	AMT	>

> = Comp.wage type is greater than av.value:
 Use comparison wage type
 < = Comp.wage type is smaller than av.value:
 Use average value

Figure 108: Final Processing Rules and Comparison Rules

Create the final processing rules that you require. You can reselect certain periods for final processing from the relevant average periods and store a delivered or modified final processing rule.

Define the comparison rules for calculated average values. If you do not want to compare the calculated average value, you do not need to make any settings.

The calculated value can be compared with a value specified here, for example, the standard pay. Specify under which conditions which value should be used. The system then uses the calculated value or the comparison value accordingly as the average value.



Demonstration: Using Calculation Rules

Purpose

To demonstrate how to use calculation rules

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. You now set up your calculation rule for averages **ZA00** and assign it to your wage type 4000. You should then ask the participants what should happen to the previous constant valuation of this wage type. This should now be delimited and a check should be made to see if wage type 4000 is set to **I** in the absence valuation. You should then give your employee several days holiday in payroll period 06, run the payroll program for the period, and show the processing of averages in the payroll log.



Demonstration: Using Comparison Rules

Purpose

To demonstrate how to use comparison rules

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. You now explain the comparison rule and create a comparison rule that compares the calculated average amount with wage type /001. You should then perform the payroll calculation for your employee and show the results.



Demonstration: Using Frozen Averages

Purpose

To demonstrate how to use frozen averages

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. You should again call calculation rule **ZA00** and enter the value A in the Freeze field. Then, enter a vacation for your employee from payroll period 05 to period 06, run payroll, and show processing in the payroll log.

Adjustment Rules

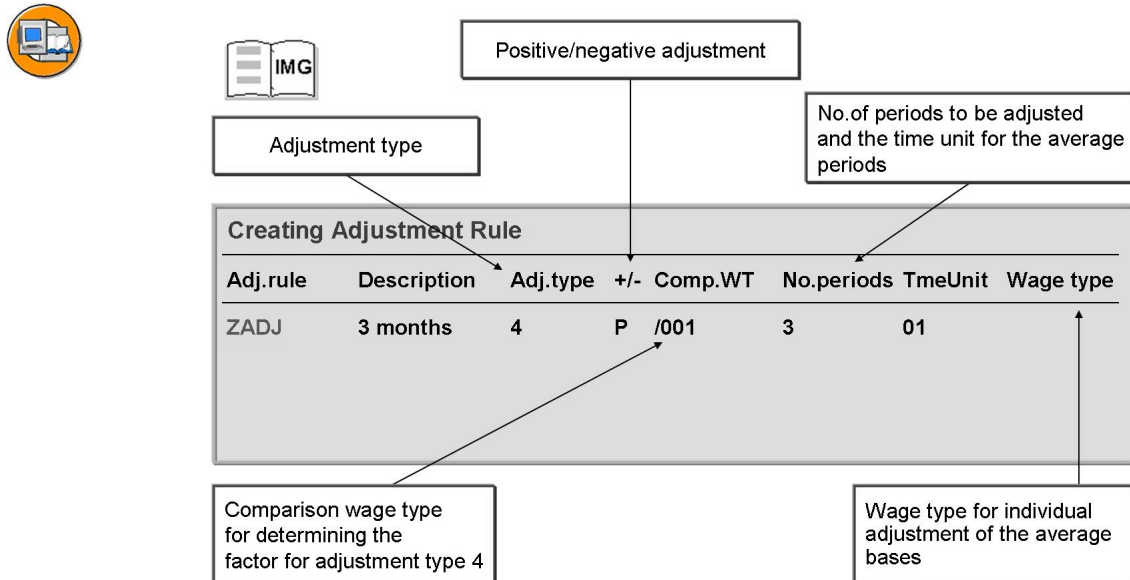


Figure 109: Adjustment Rules

If you need to adjust the average bases to retroactively increased payments for the employee, you must create an adjustment rule that you can then use in the cumulation rules. For each rule, specify which adjustment type (multiplication factor) should be used to adjust the average bases or if the adjustment should be made for individual employees using a wage type. If you use adjustment type 4, enter the required /0nn wage type in the Comparison Wage Type field.

Decide whether the adjustment should only take place in the case of a positive multiplication factor (**P**) or also for a negative factor (**B**).

Determine the number of periods to be adjusted retroactively and the time unit for the average periods.

If you want to retroactively adjust the average bases in your own way, specify a wage type here. In this way, you override the adjustment rule. In the payroll period in which the change of average bases becomes effective, use this wage type to assign an individual percentage to your employee, usually an increase percentage. To do so, enter the percentage, where, for example, '105' corresponds to an increase of 5% and '95' corresponds to a reduction of 5%, in the amount field for the wage type in the master data.

Processing Averages in Schema



- XT00 Time data processing INTERNATIONAL
- .
- MOD XMOD GEN Determine payroll modifiers
- RAB Import absences
- .
- DAYPR TC00 Day processing of time data
- .
- PAB Edit absence data
- .
- P2010 X930 GEN NOAB Edit employee remuneration information
- PIT X015 GEN Valuation of time wage types
- AVERA Calculation of averages

Once time data and employee remuneration information have been processed, time wage types are entered in internal table IT. Personnel calculation rule X015 then determines which wage types only have a value in the NUM field. If a valuation basis has been specified for a relevant wage type, it is used in personnel calculation rule X115 to value the wage type.

If processing class 15 has been maintained for the relevant wage type, personnel calculation rules X016, X017, and X018 are used to calculate the averages.

The **AVERA** function selects the wage types that are to be evaluated in accordance with the new average calculation procedure (from 4.6A).



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Exercise 15: Average Calculation Rules

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Create cumulation rules for average bases
- Adjust personnel calculation rule X018 to meet customer requirements
- Create final processing and comparison rules
- Create an average calculation rule
- Assign an average calculation rule to a wage type

Business Example

Until now, your company valued wage type 40## using a constant value of 20.00 per leave day. As of payroll period 05 onwards, employees are to be paid the average of all remuneration effected for overtime over the past three payroll periods for each leave day.

Task 1:

1. Delimit the valuation of wage type 40## Vacation bonus, which was previously constant at 20.00. Delimit the existing entry for the wage type to the start date of payroll period 05, and remove the indicator for constant valuation from the new record.

Task 2:

1. Create a cumulation rule for both the cumulation of overtime remuneration in wage type /201 and for the cumulation of the bonuses in /202. The content of the AMT field should be cumulated positively. Name your cumulation rule ZC## (## = group number).

Task 3:

1. Adjust the average formula. Copy personnel calculation rule X018 to Z8## and store an average calculation formula there that divides the average of the total of the cumulated average bases by the number of workdays in three payroll periods.



Note: You can use operation **NUM=GADIVP** to access the field ADIVP in the view *Payroll Parameters Related to Time Units* (V_T510H).

Continued on next page

Task 4:

1. Create your final processing rule **ZE##** with your personnel calculation rule **Z8##**.

Task 5:

1. Now, set up your calculation rule for averages **ZA##**.

Task 6:

1. For your wage type **40##**, store the assignment to your calculation rule for averages with a start date of payroll period 05.

Task 7:

1. Enter a few days leave for your employee in payroll period 06 using attendance/absence type 0100. Release the payroll period and start the payroll run. Check that the absence remuneration is calculated with an average value.



Note: If you want to do the optional exercises dealing with the adjustment of average calculation bases and frozen averages, do not exit payroll at the end of the payroll run. If you plan to skip these optional exercises, exit payroll if your results are correct.

Solution 15: Average Calculation Rules

Task 1:

1. Delimit the valuation of wage type 40## Vacation bonus, which was previously constant at 20.00. Delimit the existing entry for the wage type to the start date of payroll period 05, and remove the indicator for constant valuation from the new record.

- a) To delimit the valuation of wage type 40##, and delete the ID for constant valuation from the new record, go to:

IMG→Payroll: International→Time Wage Type Valuation→Valuation Bases→Assign Valuation Bases

Use the *Position* button to go directly to your wage type 40##. Choose *Delimit* and enter the first day of payroll period 05 as the new start date. Edit the delimited entry by deleting the value K for the valuation basis of the current wage type. Save your changes.

(To review your changes, select your wage type 40## and choose *Expand→Collapse*. All entries for your wage type are shown and can be reviewed using the *Detail* button.)

Task 2:

1. Create a cumulation rule for both the cumulation of overtime remuneration in wage type /201 and for the cumulation of the bonuses in /202. The content of the AMT field should be cumulated positively. Name your cumulation rule ZC## (## = group number).

- a) To create cumulation rule ZC##, choose:

IMG→Payroll: International→Time Wage Type Valuation→New Averages→Create Calculation Rules for Averages

Choose the activity *Cumulation Rules for Bases for Calculating Average Values*.

Create a cumulation rule ZC##, using two lines in the table. Enter 01.01 of the current year through 12.31.9999 as the validity period.

Cumul. Rule	Cumul. Text	Av. Basis	RTE	+	NUM	+	AMT	+
ZC##	your choice	/201					x	+
ZC##	your choice	/202					x	+

Continued on next page

Task 3:

1. Adjust the average formula. Copy personnel calculation rule X018 to Z8## and store an average calculation formula there that divides the average of the total of the cumulated average bases by the number of workdays in three payroll periods.



Note: You can use operation **NUM=GADIVP** to access the field ADIVP in the view *Payroll Parameters Related to Time Units* (V_T510H).

- a) To adjust the average formula:

IMG→Payroll: International→Time Wage Type Valuation→New Averages→Create Calculation Rules for Averages

Choose the activity *Modify Average Formula (Personnel Calculation Rule)*.

Copy rule X018 to **Z8##**. Select *Change*. Delete the entire rule structure below the wage type field (blue box containing ****). With your cursor on this field, select *Create*. Select *Sub-level*. Enter operation **NUM=GADIVP** in the open field. Select *Enter* and specify operation **NUM*3.00** in the next field. Select enter, then specify operations **AMT=M** and **DIVID ANR** in the open entry box. Press Enter twice.

Your finished rule should read as follows within the ESG * for the personnel calculation rules.

- NUM=GADIVP
- NUM*3.00
- AMT=M
- DIVID ANR

Perform a syntax check. If there are no errors, save your rule.

Continued on next page

Task 4:

1. Create your final processing rule **ZE##** with your personnel calculation rule **Z8##**.

- a) To create final processing rule **ZE##**, choose:

IMG→Payroll: International→Time Wage Type Valuation→New Averages→Create Calculation Rules for Averages

Choose the activity *Final Processing Rules for Averages*.

Enter the following:

Final Proc.	ZE##
FPr	Z8##

Task 5:

1. Now, set up your calculation rule for averages **ZA##**.

- a) To create average calculation rule **ZA##**, choose:

IMG → Payroll: International → Time Wage Type Valuation → New Averages → Create Calculation Rules for Averages

Choose the activity *Create Calculation Rules for Averages*.

Enter the following data to create the rule:

AV rule	ZA##
AV rule text	Your choice
Start date	01.01. current year
End date	12.31.9999
Cumul. rule	ZC##
Final Proc.	ZE##
Relev. AV Per	3
Time unit.	1



Note: Since you are not using a relevancy rule, you cannot specify maximum number of periods.

Continued on next page

Task 6:

1. For your wage type 40##, store the assignment to your calculation rule for averages with a start date of payroll period 05.

- a) To assign the average calculation rule to wage type 40##, choose:

IMG→Payroll: International→Time Wage Type Valuation→New Averages→Assign the Valuation of Averages to a Primary Wage Type

Enter the following data:

Wage type	40##
Start date	Start of period 05
End date	12.31.9999
AV. rule	ZA##

Continued on next page

Task 7:

1. Enter a few days leave for your employee in payroll period 06 using attendance/absence type 0100. Release the payroll period and start the payroll run. Check that the absence remuneration is calculated with an average value.



Note: If you want to do the optional exercises dealing with the adjustment of average calculation bases and frozen averages, do not exit payroll at the end of the payroll run. If you plan to skip these optional exercises, exit payroll if your results are correct.

- a) To record an absence for your employee and test the processing of averages, choose:

SAP Menu: Human Resources→Personnel Management→Administration→Maintain HR Master Data

Choose the infotype menu *Working times*. Select the *Absences* infotype and choose *Create*. Create an absence in period 06 with absence type 0100. Save your infotype record.

Run payroll for period 06 and check that the absence has been valued using your average calculation rule.

Menu: Human Resources→Payroll→International→Payroll→Release Payroll (for period 06).

Menu: Human Resources→Payroll→International→Payroll→Start Payroll

To review the result, check the detail display for function AVERA in the log section *Processing of time data*.



Note: If you want to do the optional exercise for adjusting average calculation bases, do not exit payroll. If you plan to skip this optional exercise, then exit payroll if your results are correct.



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Exercise 16: Adjusting Average Calculation Bases

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Adjust the average calculation bases when there is a change in remuneration

Business Example

The new vacation bonus provision in your company specifies that an employee's vacation bonus must be adjusted if the employee receives a pay increase. In this case, the average calculation bases of the last three previous periods must be adjusted by the appropriate factor. The factor is determined using the difference in valuation basis /001 before and after the increase in pay.

Task 1:

1. Increase your employee's basic pay as of the start of payroll period 06 by increasing the amount of the direct bonus in wage type 50## (## = group number) to 500.00.

Task 2:

1. Now, create the adjustment rule ZJ## for your average calculation rule ZA##. The adjustment should take place if there is a positive change to the employee's pay within the 3 periods being used in the calculation. The increase should be determined by comparing the values in wage type /001.

Task 3:

1. Modify your cumulation rule ZC## by entering your adjustment rule in the AMT field.

Task 4:

1. Repeat the payroll run for payroll period 06 and check the change in the calculated average value for wage type 40##.

Do not exit payroll for period 06.

Solution 16: Adjusting Average Calculation Bases

Task 1:

1. Increase your employee's basic pay as of the start of payroll period 06 by increasing the amount of the direct bonus in wage type 50## (## = group number) to 500.00.
 - a) To release the payroll area for correction, choose:
SAP Menu: Human Resources→Payroll→International→Payroll→Corrections
 To increase the basic pay of your employee, choose:
SAP Menu: Human Resources→Personnel Management→Administration→Maintain HR Master Data
 Select the *Basic Pay* infotype and choose *Copy*. Enter the first day of period 06 of the current year as the new start date. Increase the amount of wage type 50## to 500.00. Save the new record.

Task 2:

1. Now, create the adjustment rule ZJ## for your average calculation rule ZA##. The adjustment should take place if there is a positive change to the employee's pay within the 3 periods being used in the calculation. The increase should be determined by comparing the values in wage type /001.
 - a) To create adjustment rule ZJ##, choose:
IMG→Payroll: International→Time Wage Type Valuation→New Averages→Create Calculation Rules for Averages
 Choose the activity *Create Modification Rules*.
 Make the following entries in the table:

Adj. rule	ZJ##
Description	your choice
Adj.type	4
+/-	P
Comp. WT	/001
Adjust. Per.	3
Time unit.	01

Continued on next page

Task 3:

1. Modify your cumulation rule ZC## by entering your adjustment rule in the AMT field.
 - a) To change cumulation rule ZC##, choose:
IMG→Payroll: International→Time Wage Type Valuation→New Averages→Create Calculation Rules for Averages

Choose the activity *Cumulation Rules for Bases for Calculating Average Values*.

Add adjustment rule ZJ## to both entries that define your cumulation rule ZC## by entering ZJ## in the Adj.rule field.

Task 4:

1. Repeat the payroll run for payroll period 06 and check the change in the calculated average value for wage type 40##.

Do not exit payroll for period 06.
 - a) Repeat the payroll run for period 06:
Menu: Human Resources→Payroll→International→Payroll→Release Payroll (for period 06)

Menu: Human Resources→Payroll → International→Payroll→Start Payroll

To review the result, check the detail display for function AVERA in the log section *Processing of time data*.



Exercise 17: Frozen Averages

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Freeze the average value for an absence covering several payroll periods

Business Example

The new provision for vacation bonus in your company specifies that an employee's vacation bonus must be constant for all leave days. To guarantee that this is the case for absences covering several payroll periods, the calculated average value, in the period in which the absence starts, must be frozen for the duration of the absence.

Task 1:

1. Modify your calculation rule ZA## (## = group number) so that a frozen average is created.

Task 2:

1. Enter additional leave for your employee starting in payroll period 05 and ending in period 06. Repeat the payroll run for payroll period 06 and check the log. Exit the payroll run.

Solution 17: Frozen Averages

Task 1:

1. Modify your calculation rule ZA## (## = group number) so that a frozen average is created.
 - a) To change average calculation rule ZA##, choose:

IMG→Payroll: International→Time Wage Type Valuation→New Averages→Create Calculation Rules for Averages

Choose the activity *Create Calculation Rules for Averages*.

Enter the value *A* in the Freeze field of your calculation rule ZA##.

Task 2:

1. Enter additional leave for your employee starting in payroll period 05 and ending in period 06. Repeat the payroll run for payroll period 06 and check the log. Exit the payroll run.
 - a) To record additional leave for your employee, choose:

SAP Menu: Human Resources→Payroll→International→Payroll→Corrections

SAP Menu: Human Resources→Personnel Management→Administration→Maintain HR Master Data

Choose the infotype menu *Working times*. Select the *Absences* infotype and choose *Create*. Create an absence with the attendance/absence type 0100 that starts in period 05 and ends in period 06. Save your infotype record.


Repeat the payroll run for period 06 and then exit:

SAP Menu: Human Resources→Payroll→International→Payroll→Release Payroll

(for period 06).

SAP Menu: Human Resources→Payroll→International→Payroll→Start Payroll

To review the result, check the detail display for function AVERA in the log section Processing of time data.

 **Note:** Retroactive payroll runs for period 05.

SAP Menu: Human Resources→Payroll→International→Payroll→Exit Payroll (for period 06).



Lesson Summary

You should now be able to:

- Use calculation rules
- Use relevancy rules
- Use cumulation rules
- Use final processing and comparison rules
- Use adjustment rules



Unit Summary

You should now be able to:

- Valuate time wage types
- Identify the elements of average processing
- Calculate average values
- Use calculation rules
- Use relevancy rules
- Use cumulation rules
- Use final processing and comparison rules
- Use adjustment rules



Test Your Knowledge

1. In the case of the valuation of time wage types, if the RTE or AMT field contains an amount, the wage type is transferred to the internal table _____.
Fill in the blanks to complete the sentence.
2. Identify the correct sequence for calculating averages.
 - 1) Determine the previous periods required
 - 2) Include changes in pay
 - 3) Retrieve average bases
 - 4) Perform a relevancy test for each period
 - 5) Cumulate the average basis from the relevant previous periods*Choose the correct answer(s).*
 - ☐ A 5,2,3,1,4
 - ☐ B 2,3,1,5,4
 - ☐ C 4,3,1,2,5
 - ☐ D 3,1,4,5,2



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Answers

1. In the case of the valuation of time wage types, if the RTE or AMT field contains an amount, the wage type is transferred to the internal table OT.

Answer: OT

2. Identify the correct sequence for calculating averages.
 - 1) Determine the previous periods required
 - 2) Include changes in pay
 - 3) Retrieve average bases
 - 4) Perform a relevancy test for each period
 - 5) Cumulate the average basis from the relevant previous periods

Answer: D

The correct sequence for calculating averages is retrieve average bases, determine the previous periods required, perform a relevancy test for each period, cumulate the average basis from the relevant previous periods, and include changes in pay.

Unit 11



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Factoring



In this unit, the participants learn about the concept of factoring in payroll. This includes not only the reduction of remuneration, but also the time-accurate calculation of remuneration and Cost Accounting wage types. The unit also touches on the topic of absences, because absences, which are fed into an “unpaid” counting class, have repercussions on the factoring of payment.

Unit Overview

This unit talks about factoring concepts. The unit explains the various concepts behind factoring such as personal work schedule and pay reduction methods. The unit then discusses the personal calculation rules for factoring and partial period factor. Finally, the unit introduces the concepts of cost accounting. It explains how to create wage types and calculate hourly rates using cost accounting. Finally, the unit shows how to process factoring in schema.



Unit Objectives

After completing this unit, you will be able to:

- Identify the key factoring concepts
- Identify the parameters of a Personal Work Schedule
- Calculate the values of reduction in pay and the payment method
- Determine partial period factors
- Determine the remuneration elements
- Categorize the wage types used for cost accounting
- Identify the conditions used to calculate hourly rates and factoring schemas

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Lesson: Introduction to Factoring



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Lesson Duration: 30 Minutes

Lesson Overview

This lesson focuses on factoring. In this lesson, you will learn about the key concepts used in factoring and the parameters of a personal work schedule. In addition, you will also learn to calculate the values of reduction in pay and the payment method.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the key factoring concepts
- Identify the parameters of a Personal Work Schedule
- Calculate the values of reduction in pay and the payment method



The Factoring Concept

The term factoring has been selected by SAP because it includes more than simply the reduction of payments. It also includes the accurate time calculation for remuneration elements and Cost Accounting wage types.

Factoring: Periodic Remuneration

This topic contains a problem, which is to be resolved.

Partial Period Factors

Emphasize to participants that the following topics will provide the basic information necessary to define the partial period factors.

Personal Work Schedule

Displaying Partial Period Parameters (1)

Displaying Partial Period Parameters (2)

Factoring: Reduction in Pay

This topic contains a problem, which is to be solved.

Formula for the Deduction Method

Formula for the Payment Method

Formula for the PWS Method

Outline the origins of these formulae and their respective advantages and disadvantages. For further assistance, participants can access the system documentation, which gives full descriptions of each of the methods.

Secondary Wage Types for Partial Period Factors

You should mention that these wage types are not stored in the table RT; they only exist temporarily during the payroll run. If there is enough time, you can start the payroll run and display them in the payroll log after they have been created by using the function GEN/8.

Business Example

Your company pays a full bonus if the employee works on a certain number of planned working days in the payroll period. If the employee has worked less than this fixed amount, he or she does not receive the bonus. Also, an employee's remuneration might change midway through the payroll period and an employee might leave the company two days before the end of the payroll period.

Factoring Concepts



- Reduction in pay
 - Joining or leaving company during payroll period
 - Unpaid absences
 - Paid absences
 - Inactive work relationship
- Calculation of pay for exact periods
 - Changes to basic pay
 - Change in organizational assignment
 - Change in personal work schedule
- Calculation of cost accounting wage types for exact periods

Within SAP Payroll, factoring describes the pro rata calculation of remuneration for an exact period. Periodic remuneration consists of primary wage types assigned to an employee as basic pay, recurring payments, or additional payments. Factoring only covers the events that occur in the current period.

During the payroll run, the system evaluates changes relevant to factoring in the following infotypes:

Personnel Actions (0000)

Organizational Assignment (0001)

Planned Working Time (0007)

Basic Pay (0008)

Recurring Payments/Deductions (0014)

Additional Payments (0015)

Absences (2001)

If a situation arises during the payroll run that triggers factoring, the current factor is calculated and then multiplied by the wage type assigned.

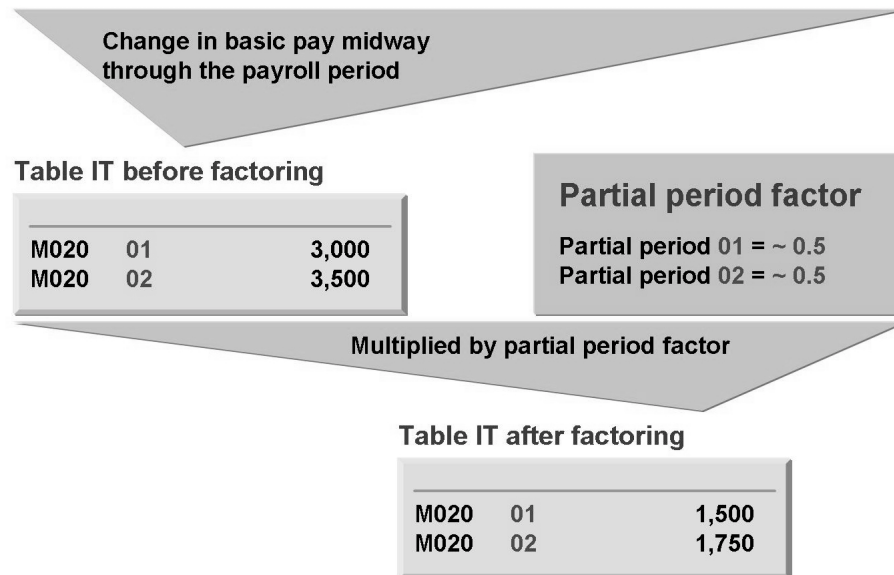


Figure 110: Partial Period Factors

In payroll, a factor is required to calculate partial period amounts.

The partial period factor is a value between 0 and 1. As soon as changes are made to master data that trigger factoring, the factor is multiplied by the employee's primary wage types for exact periods if the primary wage types must be reduced, or if their constituents for the exact periods must be calculated separately.

The calculation of partial period factors is always based on times that result, for example, from the employee's personal work schedule or absences.

Personal Work Schedule



Date	DWS grpg	Daily WS	Day type	PHol class	Variant	DWS class	Period WS	Hours	Active
31.12.2003	01	FLEX	0	0		5	FLEX	8.00	
01.01.2004	01	FLEX	1	1		5	FLEX	8.00	X
02.01.2004	01	FLEX	0	0	B	5	FLEX	5.00	X
03.01.2004	01	OFF	0	0		0	FLEX	0.00	X
04.01.2004	01	OFF	0	0		0	FLEX	0.00	X
05.01.2004	01	FLEX	0	0		5	FLEX	8.00	X
06.01.2004	01	FLEX	0	0		5	FLEX	8.00	X
07.01.2004	01	FLEX	0	0		5	FLEX	8.00	X
08.01.2004	01	FLEX	0	0		5	FLEX	8.00	X
09.01.2004	01	FLEX	0	0	B	5	FLEX	5.00	X
10.01.2004	01	OFF	0	0		0	FLEX	0.00	X
11.01.2004	01	OFF	0	0		0	FLEX	0.00	X
.....									
27.01.2004	01	FLEX	0	0		5	FLEX	8.00	X
28.01.2004	01	FLEX	0	0		5	FLEX	8.00	X
29.01.2004	01	FLEX	0	0		5	FLEX	8.00	X
30.01.2004	01	FLEX	0	0	B	5	FLEX	5.00	X
31.01.2004	01	OFF	0	0		0	FLEX	0.00	X
01.02.2004	01	OFF	0	0		0	FLEX	0.00	X

0 = Work/paid
 1 = Day off/paid
 2 = Day off/unpaid
 3 = Special day

0 = No public holiday
 1 = Public holiday
 2 = Half-day pub. hol.

0 - 9 = Can be freely defined

Figure 111: Personal Work Schedule

At the start of subschema **XT00**, function **GENPS** generates the personal work schedule for the personnel numbers for which the payroll program should be run. For time data evaluation, each employee is assigned to a general work schedule (infotype 0007) which defines planned working time on the basis of the relevant employee's work center assignment. If the employee is assigned to different work schedules during a payroll period due to a change of work center or substitution (infotype 2003), his or her planned working time will comprise several general work schedules.

The above graphic is an excerpt of table PWS for one personnel number with a monthly payroll period. The table specifies the last day of the previous payroll period and the first day of the subsequent payroll period as the system requires this data if, for example, the relevant day is a public holiday.



						Total working time projected for period			Payroll constants		
No	From	To	KSoll	ASoll	SSoll	KDiv I	ADiv I	SDiv I	KDivP	ADivP	SDivP
T	01		15.00	11.00	78.80	31.00	22.00	161.40	30.00	22.00	156.48
	02		16.00	11.00	82.60	31.00	22.00	161.40	30.00	22.00	156.48
G			31.00	22.00	161.40	31.00	22.00	161.40	30.00	22.00	156.48

No	From	To	KAU**	AAU**	SAU**	KAP**	AAP**	SAP**	KAX**	AAX**	SAX**
T	01		0.00	0.00	0.00	4.00	4.00	32.00	1.00	1.00	8.00
	02		2.00	1.00	8.00	1.00	1.00	8.00	0.00	0.00	0.00
G			2.00	1.00	8.00	5.00	5.00	40.00	1.00	1.00	8.00

			Unpaid absences			Paid absences			Public holidays		
--	--	--	-----------------	--	--	---------------	--	--	-----------------	--	--

T = Partial period	K = Calendar days
G = Whole period	A = Workdays
	S = Hours

Figure 112: Displaying Partial Period Parameters (1)

At the start of subschema XT00, function **PARTT** accesses data from the personal work schedule (table PSP) to determine the partial period factors for the payroll period. If required, substitutions can also be taken into account.

The total working time for the partial periods is calculated by applying the relevant partial period of the valid work schedule to the other partial periods of the payroll period.


You maintain constants **ADIVP** and **KDIVP** in accordance with the time unit of the payroll period in the view **Payroll Constants for Time Unit**.

Planned working time according to the employee's personal work schedule (PSP) for a specific basic pay period. **KSOLL**: Planned work measured in calendar days. **ASOLL**: Planned work measured in workdays. **SSOLL**: Planned work measured in working hours.

Unpaid absences (for a specific basic pay period) possibly weighted. **KAUxx**: Unpaid absence measured in calendar days. **AAUxx**: Unpaid absence measured in workdays. **SAUxx**: Unpaid absence measured in working hours. Either xx = nn stands for the unpaid absence counting class, or xx = ** stands for the sum of all unpaid absences (for all counting classes).

Total working time for the payroll period in accordance with the employee's work schedule for a specific basic pay period. **KDIVI**: Total working time measured in calendar days. **ADIVI**: Total working time measured in workdays. **SDIVI**: Total working time measured in working hours.





		Total working time projected for the period						Payroll constants		
No	From To	KSoll	ASoll	SSoll	KDiv I	ADiv I	SDiv I	KDivP	ADivP	SDivP
T	01	15.00	11.00	39.40	31.00	22.00	80.70	30.00	22.00	78.24
	02	16.00	11.00	82.60	31.00	22.00	161.40	30.00	22.00	156.48
G		31.00	22.00	122.00	31.00	22.00	122.00	30.00	22.00	156.48

No	From To	KAU**	AAU**	SAU**	KAP**	AAP**	SAP**	KAX**	AAX**	SAX**
T	01	0.00	0.00	0.00	4.00	4.00	16.00	1.00	1.00	4.00
	02	2.00	1.00	8.00	1.00	1.00	8.00	0.00	0.00	0.00
G		2.00	1.00	8.00	5.00	5.00	40.00	1.00	1.00	8.00

Unpaid absences			Paid absences			Public holidays		
-----------------	--	--	---------------	--	--	-----------------	--	--

T = Partial period	K = Calendar days
G = Whole period	A = Workdays
	S = Working hours

Figure 113: Displaying Partial Period Parameters (2)

In this example, the employee is a part-time worker in the first half of the payroll period with an employment percentage of 50%.

In the second half of the payroll period, the employee is a full-time worker with a 100% employment percentage.

The total working time **S Div I** of both partial periods is calculated by applying the respective partial period of the valid work schedule to the rest of the payroll period.

GSSOLL contains the employee's planned hours from the first to the last day of the payroll period, and equals **GSDIVI** in this example. If, for example, the employee joins the company on the fifth day of the payroll period, **GSSOLL** will contain a smaller value than **GSDIVI** because the planned hours are only counted from the day the employee joins the company.



Demonstration: Demonstration of personal work schedule and partial period parameters in the payroll log

Purpose

To show the personal work schedule and partial period parameters in the payroll log

System Data

System:

Client:**User ID:****Password:****Set up instructions:**

1. You should show the personal work schedule and partial period parameters in the payroll log. If time allows, you should then set the work time proportion for your employee to 50% for the first half of the payroll period and run payroll again.

Pay Reduction Methods



Factor	=	1	-	Absence

				General period working time
	=			General period working time - absence

				General period working time
Problem:				Many absences during monthly payroll
Long month				
-0.097				$\frac{167.7 - 184}{167.7}$ → Claims on employee
Short month				
0.14				$\frac{167.7 - 144}{167.7}$ → Pay despite absence for whole period

Figure 114: Formula for the Deduction Method

The deduction method multiplies the employee's hourly/daily rate by the number of unpaid times, and deducts the result from the employee's pay. The number of working hours specified per period is used as the divisor.

If the payroll program is run for monthly periods, the general divisor determines that each calculation unit (hour or day) has the same value irrespective of whether the period is a long or short month.

The deduction method is not suitable to use in the following situations:

In the long months, such as July, a large number of absences could result in negative remuneration, that is, money would be claimed from the employee.

If payroll is run on a monthly basis (monthly or half-monthly) and the employee has many unpaid absences. In short months, such as February, the employee could be absent for the entire month and still receive remuneration.

If partial remuneration must be calculated for exact periods, the employee would receive an amount that is different from the amount of remuneration effected for the period, because the number of hours or days does not correspond to the average.



Factor =	$\frac{1 * (\text{Planned working time} - \text{Absence})}{\text{General period working time}}$	
=	$\frac{\text{Planned working time} - \text{Absence}}{\text{General period working time}}$	
Problem:	Few absences during monthly payroll	
Long month		
-1.049	$\frac{184 - 8}{167.7}$	→ Pay too high despite absence
Short month		
0.906	$\frac{160 - 8}{167.7}$	→ Large reduction for few absences

Figure 115: Formula for the Payment Method

In the payment method, the employee is remunerated for the period actually worked or for paid absences. The hourly or daily rate for the payroll period is calculated based on the amount of remuneration agreed and multiplied by the number of hours or days to be paid. The number of working hours specified per period is used as the divisor.

If payroll is run for monthly periods, the general divisor determines that each calculation unit (hour or day) has the same value irrespective of whether the period is a short or long month.

It is not suitable to use the payment method in the following situations:

In long months, such as July, few absences could result in a factor that is greater than one; that is, the employee would be paid too much.

In short months, such as February, the employee could work almost the entire period and still earn considerably less.

If partial periods are calculated for exact periods, the employee would receive an amount that is different from the amount of remuneration effected for the period, because the number of hours or days does not correspond to the average.

In practice, a hybrid of both the payment and deduction methods is often used: The deduction method is used for up to 10 absence days, and the payment method for more than 10 absence days. However, this procedure also causes problems, because changing from the deduction to the payment method gives rise to great differences in the valuation of remuneration. This can lead to unwanted situations.



Factor =	1 * (PWS planned working time - Absence)

	Period working time according to PWS
=	PWS planned working time - Absence

	Period working time according to PWS
Problem:	Reduction factors of varying size
Long month	
0,957	$\frac{184 - 8}{184}$
Short month	
0,950	$\frac{160 - 8}{160}$

→ The hourly rate is lower in long months than in short months

Figure 116: Formula for the PWS Method

In the PWS method, the actual planned working time according to the employee's personal work schedule (PWS) is used as the divisor.

The PWS method is particularly suitable for reductions if planned working time is specified exactly and all deviations from planned working time are entered in the system.

Deviations that frequently occur from planned working time are the result of changes to the following infotypes:

Absences (2001)

Substitutions (2003)

Planned Working Time (0007)

The PWS method is also suitable for calculating partial payments for exact periods.



Function
GEN/8

Table IT

	NUM	RTE	AMT
3 /801 01		100,000	
3 /802 01		100,000	
.			
.			
.			
3 /816 01		100,000	
3 /801 02		100,000	
3 /802 02		100,000	
.			
.			
.			
3 /816 02		100,000	

Figure 117: Secondary Wage Types for Period Factors

Function GEN/8 generates secondary wage types /801 to /816. Factoring values are assigned to these secondary wage types during calculation.

By accessing GEN/8, the system determines the following:

Secondary wage types /801 to /8nn are generated and written to the input table (IT) for each WPBP split period.

The factor is set at 1 in each secondary wage type /8nn generated and then multiplied by the constant GENAU 100,000.00 to increase the accuracy of the calculations. The result is written to the *Rate* (RTE) field.

In the standard system, 16 secondary wage types are generated for the partial period factors. You can use 9 of these secondary wage types for your own partial period factors. Secondary wage types /810 to /816 have a meaning within the system.



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Discuss the parameters of a personal work schedule.



Lesson Summary

You should now be able to:

- Identify the key factoring concepts
- Identify the parameters of a Personal Work Schedule
- Calculate the values of reduction in pay and the payment method

Lesson: Personal Calculation Rules for Factoring



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Lesson Duration: 40 Minutes

Lesson Overview

The focus of this lesson is on personnel calculation rules used for factoring. In this lesson, you will learn about the partial period factors and remuneration elements.



Lesson Objectives

After completing this lesson, you will be able to:

- Determine partial period factors
- Determine the remuneration elements



Personnel Calculation Rules for Factoring

Point out that the rule XPPF is accessed for the relevant wage type from the schema XAL0.

Determining Partial Period Factor /801

Determining Partial Period Factor /802

With the help of the accompanying IMG activity, thoroughly explain the operations in the rules XPP1 for /801 and XPP0 for /802.

Business Example

Your company pays a full bonus if the employee works on a certain number of planned working days in the payroll period. If the employee has worked less than this fixed amount, he or she does not receive the bonus.

Personal Calculation Rules and Partial Period Factor

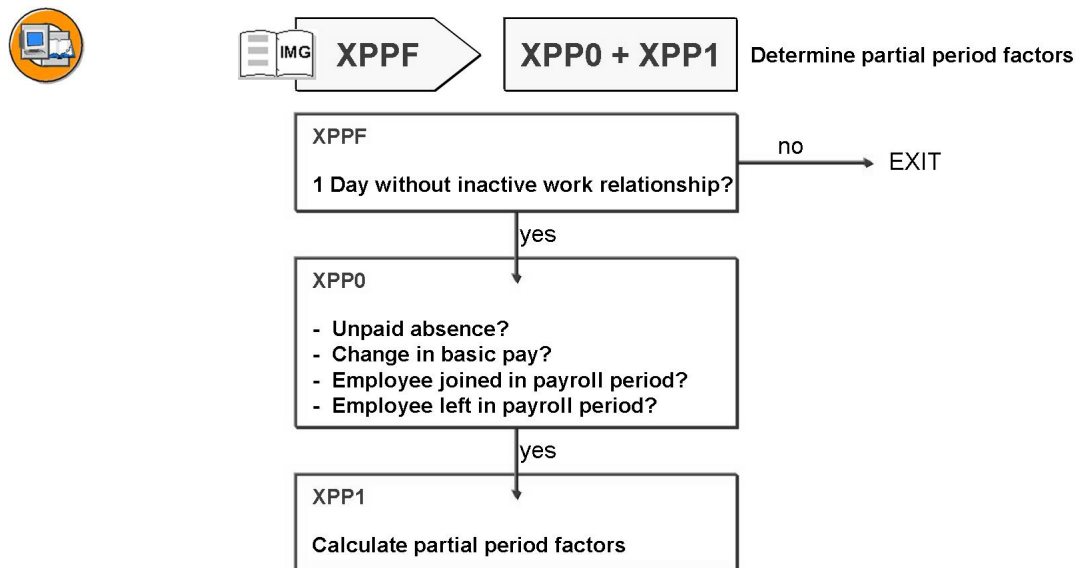


Figure 118: Personnel Calculation Rules for Factoring

The personnel calculation rule XPPF is accessed in subschema XAL0 according to wage types /801 to /816 to calculate partial period factors.

Depending on the check results from operation PPPAR, personnel calculation rule XPPF accesses personnel calculation rules XPP0 and XPP1 for wage types /801 and /802.

Personnel calculation rule XPPF calculates the following factors for Cost Accounting:

/810: Difference between the working time for the current period and the average working time

/814: *Share of paid public holidays on which there is no work*/815: *Share of work on public holidays and paid absences*/816: *Share of unpaid absences*

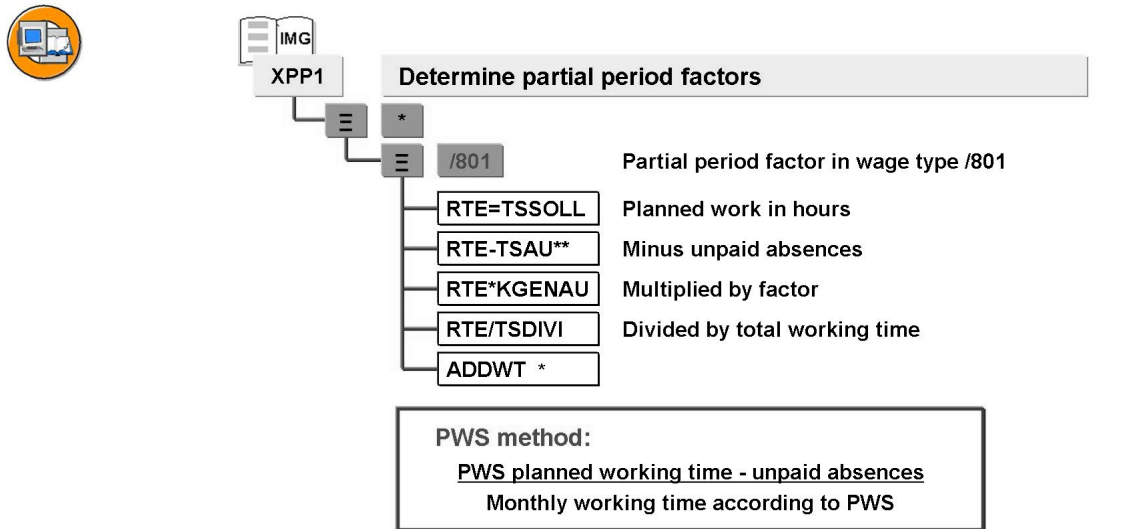


Figure 119: Determining Partial Period Factor /801

Wage type /801 contains a partial period factor that is determined using the PWS method.

Personnel calculation rule XPP1 is accessed in subschema XAL0 from personnel calculation rule XPPF for each wage type.

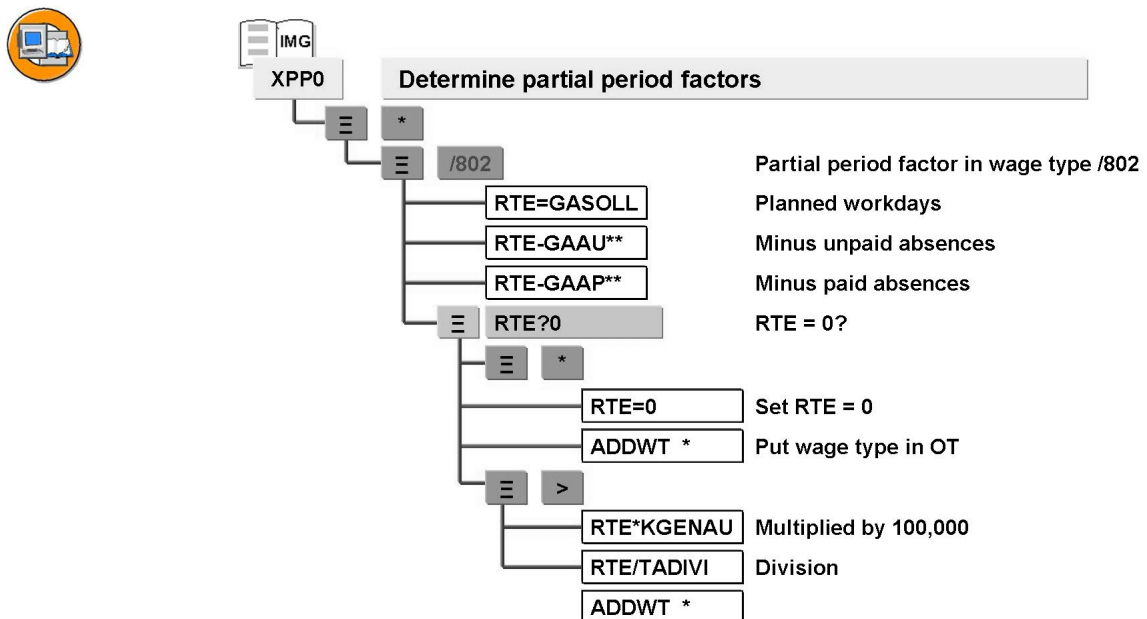


Figure 120: Determining Partial Period Factor /802

The partial period factor in wage type /802 is calculated using the following formula:

Planned working time - unpaid absences - paid absences

Planned working time

is calculated in the time unit **workdays**.

You can use partial period factor /802 to only remunerate the remuneration elements of an employee's pay (for example, travel allowance) on the days in the payroll period the employee actually worked.



The screenshot shows the SAP IMG configuration for wage types. It is set to 'Wage type M020' with the description 'Monthly salary'. Under 'Processing class', class '10' is selected with the description 'Mark wage types for factoring'. Under 'Specification', specification '1' is selected with the description 'Reduction with factor /801'.

Figure 121: Assigning Reduction Factors

The reduction factor for primary wage types is assigned to processing class 10.



Demonstration: Using Personal Calculation Rules and Partial Period Factor

Purpose

To demonstrate the use of personal calculation rules and partial period factor

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Open the IMG section Factoring and choose the activity Assign Reduction Factors. Explain the rules XPPF, XPP0, and XPP1 with the individual activities. Afterwards, copy the rule XPPF to ZP00 and show how this part of the process is to be created for wage type /803. Do not enter any operations, since the participants will have to do this in the next exercise.

Valuating Remuneration Elements

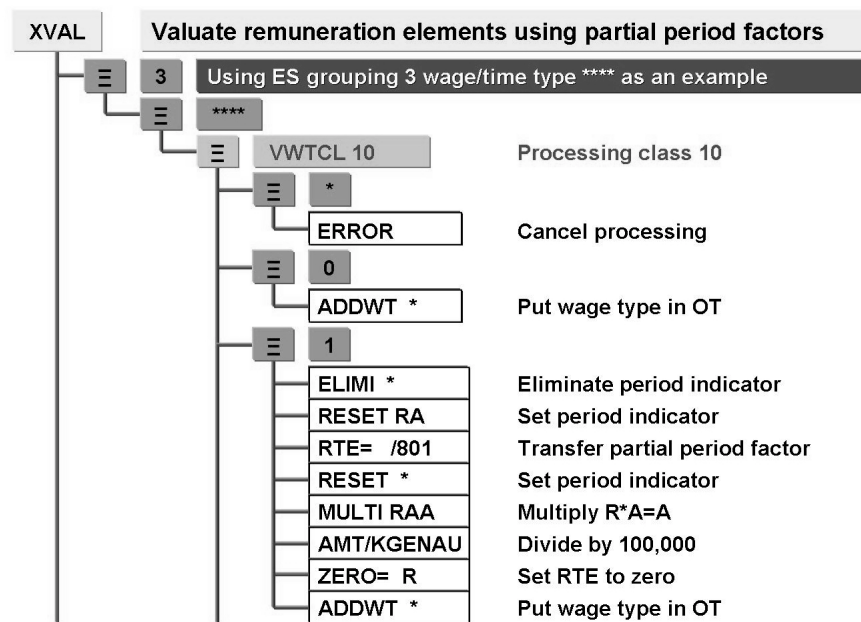


Figure 122: Valuating Remuneration Elements

Personnel calculation rule **XVAL** multiplies the amount of the wage type to be factored by the partial period factor. If the wage type to be factored has specification 1 in processing class 10, for example, the system uses the factor in the RTE field of wage type /801 for the multiplication. The result of the multiplication is stored in the AMT field of the factored wage type. The AMT field is then divided by the constant GENAU from table T511K (Payroll Constants) to arrive at the final factored AMT.

ELIMI:

The entries in the work tables (IT, OT, and RT) are assigned to various validity periods in basic data (such as work center, taxation, and cost distribution) by means of split indicators. This allows the system to create exact time references for wages/salary earned and to calculate and distribute costs. If it is no longer necessary to distinguish between partial periods for one of the feature classes in

the wage type currently being processed, you can remove the corresponding split indicator using the operation ELIMI. You can specify up to 3 split indicators as parameters, or enter * for all of them.

RESET:

This operation resets the time period indicators (split indicators).

Examples: * all indicators

R Employee subgroup grouping for personnel calculation rule

A Work center indicator (WPBP)



Demonstration: Assigning Partial Period Factors and Valuating Payroll Elements

Purpose

To demonstrate how to assign partial period factors and value payroll elements

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. In the IMG, display the assignment of reduction factors to the wage types to be reduced. Call up rule XVAL and explain the process.
-



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Exercise 18: Determining and Assigning Reduction Factors

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Determine partial period factors according to the all-or-nothing method
- Assign partial period factors to a wage type that is to be reduced

Business Example

Your company pays the total instructor's bonus of 100.00 if the employee works on at least five of the planned working days in the payroll period. If the employee has worked less than 5 planned working days, he or she does not receive an instructor's bonus for that period.



Hint: You require a partial period factor that is determined in the time unit workday using the formula **planned working time minus unpaid absences minus paid absences**. The reduction factor must be stored in wage type /803.

Task 1:

1. Using the IMG, make a copy of personnel calculation rule XPPF, and rename it ZP## (## = group number). In rule ZP##, create a processing link to wage type /803. Formulate operations and decisions that calculate a reduction factor to be stored in wage type /803. The wage type that is to be factored should be paid in full if your employee has worked on five or more of the planned working days. If less than five days are worked, the wage type should not be paid out at all. Make sure that your calculation rule takes into account both paid and unpaid absences.

Task 2:

1. Make a copy of subschema XAL9 and name it ZA##. Include your copy of personnel calculation rule XPPF, named ZP##, in your subschema ZA##, and include your subschema ZA## in your main schema Z0##.

Task 3:

1. Assign a reduction factor to wage type 60## as of period 07. This reduction factor is based on technical wage type /803.

Continued on next page

Task 4:

1. Assign wage type 60##, with an amount of 100.00, to your employee's basic pay record as of period 07.



Note: Do not delete any exiting of the Basic Pay infotype

Enter fewer than 17 paid/unpaid absences in period 07 for your employee. Then, enter more than 17 paid/unpaid absences in period 08. Use attendance/absence types 0100 and 0620 to assign absences in infotype 2001.

Task 5:

1. Run payroll for periods 07 and 08. Confirm that wage type 60## is paid in period 07 and not paid in period 08.

Solution 18: Determining and Assigning Reduction Factors

Task 1:

1. Using the IMG, make a copy of personnel calculation rule XPPF, and rename it ZP## (## = group number). In rule ZP##, create a processing link to wage type /803. Formulate operations and decisions that calculate a reduction factor to be stored in wage type /803. The wage type that is to be factored should be paid in full if your employee has worked on five or more of the planned working days. If less than five days are worked, the wage type should not be paid out at all. Make sure that your calculation rule takes into account both paid and unpaid absences.

- a) To make a copy of personnel calculation rule XPPF, rename it ZP##, and create a processing link for wage type /803, choose:

IMG→Payroll: International→Factoring→Create Reduction Factors

Choose the activity *Determine Partial Period Factors – rule XPPF*.

Make a copy of rule XPPF and rename it ZP##. Choose *Change*. Add the following processing link for wage type /803.

Structural graphic:

```

ZP## Determine partial period factors
-      *
+      /801 Partial period factor 1
+      /802 Partial period factor 2
-      /803 Partial period factor 3
      RTE=GASOLL      Set
      RTE-GAAU**      Subtraction
      RTE-GAAP**      Subtraction
      RTE?5           Comparison
      <
      RTE=0           Set
      ADDWT *         OT Output table
      *
      RTE=1           Set
      RTE*KGENAU       Multiplication
      ADDWT *         OT Output table
  
```

Proceed as follows: to edit the rule in the graphic editor, place your cursor on the wage type /802 and select *Create*. Select *Same Level*. Enter /803 in the input field. Select *Enter* twice.

Continued on next page

With your cursor on /803, select *Create*. Select *Sub-level*. Enter RTE=GASOLL in the input field. Keep pressing *Enter* to open new input fields until you have entered all operations (see above).

When you enter the operation RTE?5, the system recognizes it as a decision operation. Therefore, it creates a field for the variable key. Enter < and press *Enter*. In the next field, enter * and press *Enter* twice.

Place your cursor on < and select *Create*. Select *Sub-level*. Enter the operation RTE=0 , press *Enter*, then enter the operation ADDWT * in the next input field. Press *Enter* twice.

Using this same procedure, enter the operations as shown in the structural graphic view above under the * decision result.

Select *Check*. If there are no errors, save your rule.

Task 2:

1. Make a copy of subschema XAL9 and name it ZA##. Include your copy of personnel calculation rule XPPF, named ZP##, in your subschema ZA##, and include your subschema ZA## in your main schema Z0##.

- a) To make a copy of subschema XAL9 so that you can incorporate your rule ZP## in your schema, choose:

IMG→Payroll: International→Factoring→Create Reduction Factors

Select the activity *Enter Modified Personnel Calculation Rule in Schema*.

In Release 4.6, to make a copy of schema XAL9 for the required modifications, choose:

SAP Menu: Human Resources→Payroll→International→Tools→Customizing Tools→Schema

Select *Copy*, enter the following data, and choose *Enter*:

From schema: **XAL9**

To schema: **ZA##**

Select *Change* to edit schema **ZA##**. Using the procedure outlined earlier in these exercises, incorporate your rule ZP## in the subschema.

Return to the main schema editor screen and enter schema Z0##. Add your subschema ZA## using the previously described procedure. ZA## should replace the standard schema XAL9.

Continued on next page

Task 3:

1. Assign a reduction factor to wage type 60## as of period 07. This reduction factor is based on technical wage type /803.
 - a) To assign a reduction factor based on technical wage type /803 to wage type 60##, choose:

IMG→Payroll: International→Factoring→Assign Reduction Factors

Select wage type 60## and press the Delimit button. Enter the first day of period 07 as the start date. The details screen will appear for the wage type. Set the processing class 10 to value 3. Save your entry.

Task 4:

1. Assign wage type 60##, with an amount of 100.00, to your employee's basic pay record as of period 07.



Note: Do not delete any exiting of the Basic Pay infotype

Enter fewer than 17 paid/unpaid absences in period 07 for your employee. Then, enter more than 17 paid/unpaid absences in period 08. Use attendance/absence types 0100 and 0620 to assign absences in infotype 2001.

- a) To assign wage type 60## to your employee and to record paid and/or unpaid absences, choose:

SAP Menu: Human Resources→Personnel Management→Administration→Maintain HR Master Data.

In the infotype menu, select the *Gross/net payroll* tab, then select the *Basic Pay* infotype and choose *Copy*. Set the validity start date of the new infotype record to the first day of period 07. Add wage type 60## to the record and assign it a value of 100.00. Save the new record.

Choose the infotype menu *Working times*. Select the *Absences* infotype and choose *Create*. Create a record for period 07 for a paid (0100) or unpaid (0620) absence for less than 17 absence days. Then create an absence infotype record for period 08 for more than 17 absence days, using the absence types specified above. Save the absences.

Continued on next page

Task 5:

1. Run payroll for periods 07 and 08. Confirm that wage type 60## is paid in period 07 and not paid in period 08.
 - a) To simulate payroll for periods 07 and 08, and to check the calculation rule ZP##, choose:

SAP Menu: Human Resources→Payroll→International→Payroll→Simulation

Use your selection variant and enter payroll period 08 in the *Other period* field. Make sure you also select the radio button for this field. Run payroll and check in the result whether wage type 60## is fully paid in period 07. The wage type must not be compensated in period 08 (it will not appear in table RT).

If you want to check the creation of the reduction factor /803, open the following path in the payroll log: *Factoring and Storage → Else*.

Review the sections PIT ZP## NOAB and PIT XVAL P10.



Lesson Summary

You should now be able to:

- Determine partial period factors
- Determine the remuneration elements

Lesson: Cost Accounting



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Lesson Duration: 35 Minutes

Lesson Overview

This lesson explains cost accounting concepts. In this lesson, you will learn about the wage types used for cost accounting. You will also learn about the conditions used to calculate hourly rates and factoring schemas.



Lesson Objectives

After completing this lesson, you will be able to:

- Categorize the wage types used for cost accounting
- Identify the conditions used to calculate hourly rates and factoring schemas



Creating Wage Types for Cost Accounting

Creating Hourly Rates for Cost Accounting

Explain the processing of the rule XCH0. This rule is accessed with function ACTIO. Unlike PIT, the process is only carried out once.

Factoring in the Schema

Position the parts relevant to factoring in schemas XT00 and XAL0 in the overall context of the schema X000.

Business Example

Your company pays a full bonus if the employee works on a certain number of planned working days in the payroll period. If the employee has worked less than this fixed amount, he or she does not receive the bonus.

Creating Wage Types



IMG

WType M020 Monthly salary

Processing class

31 Allocate monthly lump sums to CO

Specification

1 Calculate paid public holidays

Figure 123: Creating Wage Types for Cost Accounting

To create the amount paid as continued pay for paid absences (leave, sickness, or public holidays), all of the basic pay wage types must have a specification in processing class 31.

Processing class 31 can have the following specifications:

- 0 Wage type does not lead to cost center debits/credits
- 1 Calculate paid public holidays
- 2 Calculate total paid non-work
- 3 Calculate paid non-work and unpaid absence time

Personnel calculation rule **XCM0** is accessed by subschema XAL9 to distribute remuneration elements to secondary wage types for Cost Accounting. The payments made to an employee are divided into productive and unproductive parts for exact periods. Depending on the specification, the amount field (AMT) is filled with the following wage types:

/840 *Difference between the working hours in the current month and average value*

/844 *Paid public holidays*

/845 *Total paid non-work*

/846 *Total unpaid absences.*

Calculating Hourly Rates

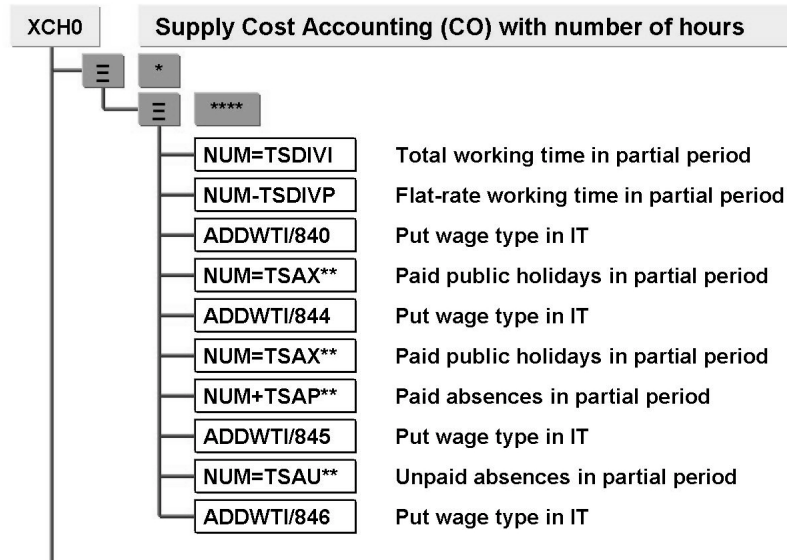


Figure 124: Creating Hourly Rates for Cost Accounting

In personnel calculation rule **XCH0**, the number (NUM) field of the wage types /840, /844, /845, and /846 is filled with hours. The amount (AMT) fields in personnel calculation rule XCM0 already contain values.

Subschema XAL0 accesses personnel calculation rule XCH0 a single time using function **ACTIO**. Operation **ADDWTInnnn** inserts a wage type with the name nnnn into the input table. As the wage types specified in the personnel calculation rule already exist in table IT, only the NUM field changes for the existing wage types.



Demonstration: Displaying Wage Types for Cost Accounting

Purpose

To display creating wage types for cost accounting

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. In the IMG, call up and display Creating Wage Types for Cost Accounting.
If there is enough time, you can also explain the accompanying rule XCM0.

Processing Factoring in Schema



<u>XT00</u>			<u>Time data processing INTERNATIONAL</u>
.			
GENPS			Generate personal work schedule
GENPS	S**	*	Generate PWS with shift substitutions
.			
PARTT			Provide partial period parameters
.			
P2003	S**		Import shift substitutions to PWS
.			
PAB			Edit absence data

<u>XAL9</u>			<u>Factoring and storage INTERN.</u>
GEN/8	16		Create wage types /801 - /816 in IT
PIT	XPPF	NOAB	Determine partial period factors
PIT	XCM0	P31	Monthly flat-rate for Cost Accounting
PIT	XVAL	P10	Valuate Remuneration Elements
ACTIO	XCH0	A	Hourly rates for Cost Accounting
.			

Figure 125: Factoring in Schemas

At the start of subschema **XT00**, function **GENPS** generates the personal work schedule for the personnel numbers for which payroll is to be run. Substitutions (infotype 2003), which are relevant for the work schedule can either be taken into account when setting up table PWS or can be added later.

In this case, the shift substitutions are not taken into account when setting up partial period parameters and factors as function **P2003** imports them into table PWS at a later date.

Table PART is complete once the absence data (**PAB**) has been edited.

In personnel calculation rule **XVAL**, the amount specified for the wage type to be factored is multiplied by the partial period factor (wage type /8nn).



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Discuss the specifications possible in processing class 31.



Lesson Summary

You should now be able to:

- Categorize the wage types used for cost accounting
- Identify the conditions used to calculate hourly rates and factoring schemas



Unit Summary

You should now be able to:

- Identify the key factoring concepts
- Identify the parameters of a Personal Work Schedule
- Calculate the values of reduction in pay and the payment method
- Determine partial period factors
- Determine the remuneration elements
- Categorize the wage types used for cost accounting
- Identify the conditions used to calculate hourly rates and factoring schemas



Test Your Knowledge

1. In a payroll, a factor is required to calculate partial period amounts by calculating the current factor and multiplying it with the wage type assigned.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

2. Which of the following characters is used to depict the total working time in terms of calendar days?
Choose the correct answer(s).
 - ☐ A A
 - ☐ B S
 - ☐ C K
 - ☐ D T

3. Which option imports shift substitutions to PWS?
Choose the correct answer(s).
 - ☐ A GENPS
 - ☐ B PARTT
 - ☐ C P2003
 - ☐ D PAB



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Answers

1. In a payroll, a factor is required to calculate partial period amounts by calculating the current factor and multiplying it with the wage type assigned.

Answer: True

In a payroll, a factor is required to calculate partial period amounts by calculating the current factor and multiplying it with the wage type assigned.

2. Which of the following characters is used to depict the total working time in terms of calendar days?

Answer: C

K depicts the total working time in terms of calendar days.

3. Which option imports shift substitutions to PWS?

Answer: C

P2003 imports shift substitutions to PWS.

Unit 12



Cumulation Wage Types



This unit deals with final processing of time wage types, basic pay wage types, and external bank transfers. In addition, it deals with updating the cumulation wage types in the table CRT.

Unit Overview

This unit explains how to cumulate and store wage types. The unit explains concepts such as time wage types, basic pay wage types, cumulation of wage types, and wage types from external transfers. Finally, the unit shows how to process cumulation wage types in the schema.



Unit Objectives

After completing this unit, you will be able to:

- Cumulate wage types
- Cumulate basic pay wage types
- Identify the parameters in cumulating wage types from external transfers and in schemas

Unit Contents

Lesson: Cumulating and Storing Wage Types	324
Demonstration: Processing Class 30	326
Demonstration: Cumulation Wage Types from Master Data.....	328
Demonstration: Updating Cumulation Wage Types and Creating Annual Values.....	331

Lesson: Cumulating and Storing Wage Types



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Lesson Duration: 40 Minutes

Lesson Overview

This lesson focuses on cumulating and storage wage types. In this lesson, you will learn to cumulate wage types and basic pay wage types. In addition, you will learn about the parameters in cumulating wage types from external transfers and in schemas.



Lesson Objectives

After completing this lesson, you will be able to:

- Cumulate wage types
- Cumulate basic pay wage types
- Identify the parameters in cumulating wage types from external transfers and in schemas



Cumulating and Storing Time Wage Pay Types

It is important to tell the participants that cumulation on the average bases /2nn will only occur if the time wage type is coded with a specification in processing class 3, which contains the cumulation.

Cumulating and Storing Basic Pay Wage Types

It is important to emphasize to participants that cumulation on the average bases /1nn only takes place if the basic pay wage type is coded with a specification in processing class 20, which contains the cumulation.

Creating Cumulation Wage Types in Schemas

Put the parts relevant for creating cumulative wage types in the subschemas into the overall context of processing the schema X000.

Business Example

You want to cumulate the time and master data wage types in certain cumulation wage types and store them in tables RT and CRT.

Time Wage Types

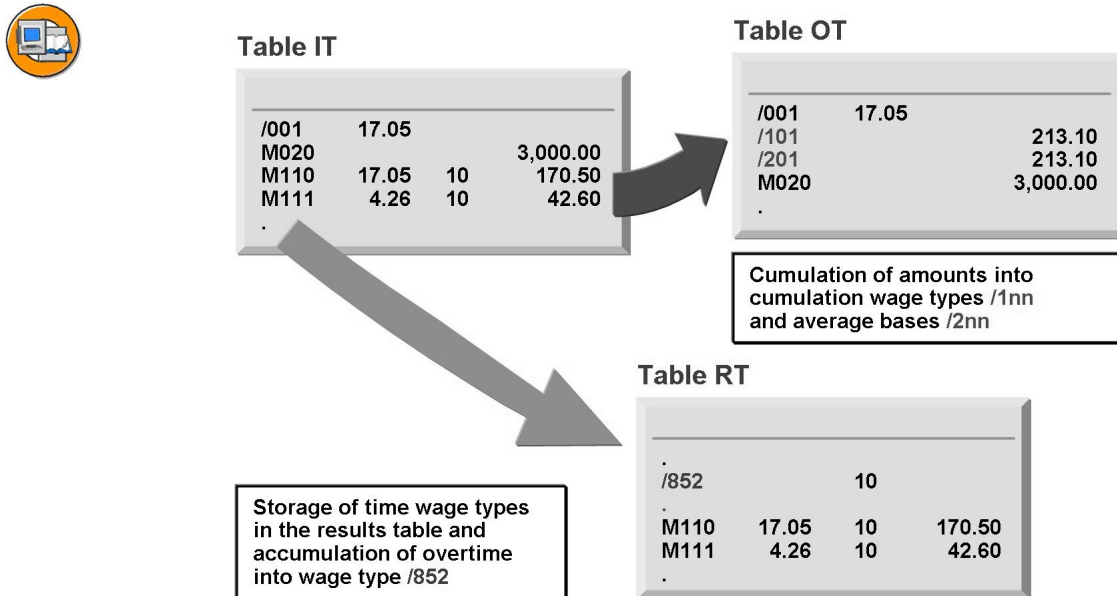


Figure 126: Cumulating and Storing Time Wage Types

At the end of subschema XT00, the wage types in the IT are processed in personnel calculation rule X020. The time wage types that should no longer be processed because they were already valued using a valuation basis or with an average value, are now stored in the RT results table, the amounts are added in gross cumulation wage types /1nn and average bases /2nn. The overtime hours can be accumulated in wage type /852.



Note: Cumulation in the average bases /2nn only happens here when you use the old averaging procedure. If you use the new averaging procedure, the average bases are created by function **ADDCU** in subschema XEND.

At this stage, the basic pay wage types have not been through factoring in the payroll schema. For this reason, these cannot be stored in the results table yet.



Wage type		M110	Overtime hours
Processing class			
3	Cumulation and storage of time wage types		
Specification			
5	RT storage, cumulation, accumulation of OH		
Cumulation			
1	Total gross amount	<input checked="" type="checkbox"/>	X
10	Net payments/deduct.	<input type="checkbox"/>	

Figure 127: Cumulation WTs from Time-Based Payments

In processing class 3, you specify how each time wage type should be stored in the results table. You have the following options:

- The wage type is not stored in the results table but is transferred.
- The wage type is stored in the results table without being cumulated.
- The wage type is cumulated and stored in the results table.
- The wage type is cumulated and stored in the results table, the hours for this wage type are also cumulated as overtime hours.

At this point, wage types from the *Basic Pay* infotype (0008) must also be identified. They should be transferred at this point because the system needs them at a later stage in the payroll run.



Demonstration: Processing Class 30

Purpose

To explain the specifications of the processing class 30

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Call up the IMG activity of the same name and explain the specifications of the processing class 30, taking the wage type /852 as an example, code the wage type with specification 3, and initiate a forced retroactive payroll run.

Basic Pay Wage Types

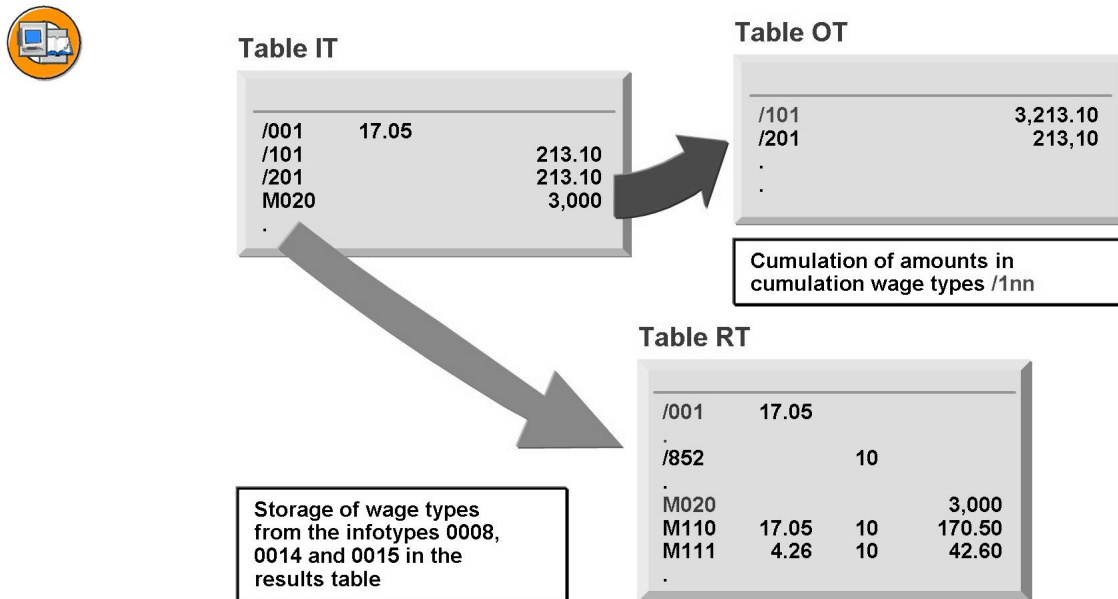


Figure 128: Cumulating and Storing Basic Pay Wage Types

At the end of subschema XAL9, the wage types in the IT are processed in personnel calculation rule X023. The wage types that no longer require processing are now stored in the RT results table, the amount fields are added to the gross cumulation wage types /1nn.

Cumulation of Wage Types



WT	M020	Monthly salary
Processing class		
20	Storage and cumulation	
Specification		
3	RT storage, cumulation	
Cumulation		
1	Total gross amount	<input checked="" type="checkbox"/>
10	Net payments/deduct.	<input type="checkbox"/>

Figure 129: Cumulation Wage Types Based on Master Data

In processing class 20, you specify how each master data wage type should be stored in the results table. You have the following options:

- The wage type is not stored in the results table but is transferred unchanged.
- The wage type is excluded.
- The wage type is stored in the results table and is included in the cumulation wage types.
- The wage type is stored in the results table without being cumulated.



Demonstration: Cumulation Wage Types from Master Data

Purpose

To demonstrate how to cumulate wage types from master data

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Call up the IMG activity of the same name and explain the specifications of processing class 20 taking the wage type 1000 salary as an example.

Wage Types from External Transfers



The screenshot shows the SAP IMG configuration for Wage Types from External Transfers. The form is titled 'Wage type' and contains the following fields:

- Wage type:** M500
- Union contributions:** (empty field)
- Processing class:** 25 (Processing after end of payments/deductions)
- Specification:** 1 (Summarized RT storage)
- Cumulation:** 10 (Net payments/deduct. with a checked X)

Figure 130: Cumulation Wage Types from External Transfers

In processing class 25, you specify how every wage type entered via the External Bank Transfers infotype (0011) should be processed in the personnel calculation rule X045. These wage types cannot be cumulated in gross cumulation wage types because they are processed in the net part of the payroll run. You have the following options:

- Transfer unchanged
- Summarized RT storage with transfer ID
- It is not possible to cumulate in wage type /110

Overview of Annual Values



Table RT

/001	17.05		
/101			3,213.10
/852		10	
.			
M020			3,000
M110	17.05	10	170.50
M111	4.26	10	42.60
.			

Table CRT

/101			6,213.10
/852		10	
.			
M020			6,000
M110		10	170.50
M111		10	42.60
.			

Cumulation of selected wage types from the results table in the cumulation results table

Figure 131: Updating Cumulation Wage Types

For many wage types, you may want an overview of the annual values already cumulated (for example, for printing annual values from certain wage types on the payroll form). For this purpose, these wage types are transferred to the annual results table CRT.

This takes place at the end of the payroll run with the help of the ADDCU function and processing class 30.



Wage type M020 Monthly salary

Processing class

30 Update of cumulation wage types

Specification

2 Cumulate amount in current year

Figure 132: Creating Annual Values

In processing class 30, you specify which wage types are cumulated in the annual results table CRT using the ADDCU function.



Demonstration: Updating Cumulation Wage Types and Creating Annual Values

Purpose

To explain the specifications of the processing class 30

System Data

System:

Client:

User ID:

Password:

Set up instructions:

1. Call up the IMG activity of the same name and explain the specifications of the processing class 30, taking the wage type /852 as an example, code the wage type with specification 3, and initiate a forced retroactive payroll run.

Processing Cumulation Wage Types in the Schema



- XT00 General processing of time data INTERN.
- .
- PIT X015 GEN Valuation of time wage types
- .
- PIT X020 P03 Cumulation and RT storage
- -----
- XAL9 Factoring and storage INTERN.
- ACTIO XCH0 A Hourly rates for Cost Accounting
- PIT X023 P20 NOAB Gross input and storage
- -----
- XNN0 Net payments/deducts.and transfers INTERN.
- .
- P0011 X055 GEN NOAB Read external transfers infotype 0011
- PIT X045 P25 Import payments/deductions to RT
- -----
- XEND Final processing INTERN.
- ADDCU P30 Update cumulation wage types CRT



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Discuss the various options to specify how each time wage type should be stored in the results table in processing class 3.



Lesson Summary

You should now be able to:

- Cumulate wage types
- Cumulate basic pay wage types
- Identify the parameters in cumulating wage types from external transfers and in schemas



Unit Summary

You should now be able to:

- Cumulate wage types
- Cumulate basic pay wage types
- Identify the parameters in cumulating wage types from external transfers and in schemas



Test Your Knowledge

1. Which of the following combinations depict Import payments/deductions to RT?

Choose the correct answer(s).

- ☐ A PIT X015 GEN
- ☐ B PIT X020 P03
- ☐ C PIT X045 P25
- ☐ D ACTIO XCHO A



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Answers

1. Which of the following combinations depict Import payments/deductions to RT?

Answer: C

PIT C045 P25 depicts Import payments/deductions to RT.

Unit 13



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Recalculation



As no Customizing activities are required for final processing of the payroll in schema X000, this unit deals with retroactive accounting. Display and explain the wage types, which result from retroactive accounting.

Unit Overview

This unit discusses how to calculate retroactive accounting differences. The unit explains concepts such as creating retroactive wage types, simple retroactive accounting and multiple retroactive accounting. Finally, the unit shows how to process retroactive accounting in the schema.



Unit Objectives

After completing this unit, you will be able to:

- Identify the characteristics of retroactive accounting
- Identify the tasks that need to be performed while processing retroactive accounting

Unit Contents

Lesson: Calculating Retroactive Accounting Differences.....338

Lesson: Calculating Retroactive Accounting Differences



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Lesson Duration: 35 Minutes

Lesson Overview

The lesson focusses on calculating retroactive accounting differences. In this lesson, you will learn about the characteristics of retroactive accounting. You will also learn about the tasks that need to be performed while processing retroactive accounting.



Lesson Objectives

After completing this lesson, you will be able to:

- Identify the characteristics of retroactive accounting
- Identify the tasks that need to be performed while processing retroactive accounting



Determining Retroactive Accounting Differences

Explain wage types.

Simple Retroactive Accounting

The graphic contains a problem, and the solution is shown.

Example: First Retroactive Accounting Run

Explain wage types.

Multiple Retroactive Accounting

The slide contains a problem, and the solution is shown.

Example: Second Retroactive Accounting Run

Explain wage types.

Retroactive Accounting in the Schema

Explain the retroactive accounting in the schema XRRO.

Business Example

In payroll programs, it often occurs that you have to run payroll functions for periods in the past, which have already had payroll calculated. In this case, special wage types must be created to process the differences. An employee at your company receives a basic pay raise in payroll period 02 that is backdated to the middle of period 01. This means that the amount in period 01 must be recalculated in a retroactive accounting run. In addition, another employee receives another

basic pay raise in payroll period 03 that is backdated to payroll period 01. This increase in basic pay comes into force in the first payroll period as well as at a later date in the payroll period.

Creating Retroactive Wage Types



1) Cumulation of net amount:		
/550	3,000	Statutory net pay
2) Payment amount before transfer:		
/560	3,000	Payment amount (new)
3) Creation of differences:		
/560	3,750	Payment amount (new)
/560	3,000	Payment amount (from ORT)
/551	750 -	Total net retro. acc. difference
/553	750 -	Retro. acc. difference to last payr.
4) Wage types in the results table:		
/559	3,750	Bank transfer
/560	3,000	Payment amount (old)
/551	750 -	Total net retro. acc. difference
/553	750 -	Retro. acc. difference to last payr.

Figure 133: Calculating Retroactive Accounting Differences:

Wage type /550 is created in the net cumulation part of the payroll schema. The amount for wage type /550 is then added to wage type /560.

Wage types /551 and /553 are created in the case of retroactive accounting. The difference between wage type /560 from the old payroll result (table ORT) and the newly calculated payment amount is stored in wage type /551 for the payroll period calculated retroactively.

Wage type /553 is created as the difference between the payment amount for the period currently being accounted and the previous result for the same period. Where multiple retroactive accounting takes place for a period, the wage type contains the difference between the amounts paid for previous and current retroactive accounting. Wage types /551 and /553 are both stored with a reversed sign +/-.

Note that wage type /560 in the results table for the retroactive accounting run contains the amount specified in the original payroll result.

Simple Retroactive Accounting



Period 01 in period 01		
/550	3,000	<i>Statutory net amount</i>
/559	3,000	<i>Bank transfer</i>
/560	3,000	<i>Payment amount</i>

Period 01 in period 02	Period 02 in period 02	
/550 3,750	/550 4,500	<i>Statutory net amount</i>
/551 750 -		<i>Total net retro. acc. difference</i>
	/552 750	<i>Total net subseq. clearance</i>
/553 750 -		<i>Retro. acc. difference to last payr.</i>
/559 3,000	/559 5,250	<i>Bank transfer</i>
/560 3,000	/560 5,250	<i>Payment amount</i>

Figure 134: Example: First Retroactive Accounting Run

In this example, the employee's basic pay is increased from 3,000 to 4,500 in the middle of payroll period 01. The statutory net amount for the period calculated retroactively is the total of the statutory net amount for both partial periods of this payroll period.

Due to subsequent clearing, the statutory net amount of period 01 in period 02 as well as the amount paid are higher than those specified in the original payroll run. Wage type /551 contains the difference between the old and the newly calculated payment amount with reversed +/- sign.

In the current period, the amount in wage type /551 is then transferred to wage type /552.

Multiple Retroactive Accounting



Period 01 in period 01		
/550	3,000	Statutory net amount
/559	3,000	Bank transfer
/560	3,000	Payment amount

Period 01 in period 02		Period 02 in period 02		
/550	3,750	/550	4,500	Statutory net amount
/551	750 -			Total net retro. acc. difference
		/552	750	Total net subseq. clearance
/553	750 -			Retro. acc. difference to last payr.
/559	3,000	/559	5,250	Bank transfer
/560	3,000	/560	5,250	Payment amount

Period 01 in period 03		Period 02 in period 03		Period 03 in period 03	
/550	4,075	/550	5,800	/550	5,800
/551	1,075 -	/551	1,300 -		
		/552	750	/552	1,625
/553	325 -	/553	1,300 -		
/559	3,000	/559	5,250	/559	7,425
/560	3,000	/560	5,250	/560	7,425

Figure 135: Example: Second Retroactive Accounting Run

In this example, the employee's basic pay is increased from 4,500 to 5,800 in period 03 at the start of the last of payroll period 01.

Due to subsequent clearing, the statutory net amount for period 01 in period 03 and the payment amount are again higher than in the original payroll run. Wage type /551 contains the difference between the original and the newly calculated payment amount. Wage type /553 contains the difference between the newly calculated payment amount and that from the previous retroactive accounting run.

The statutory net amount for period 02 in period 03 is higher than that in the original payroll results. Wage type /552 contains the subsequent clearing amount from the first retroactive accounting run for period 01.

The amount for wage type /553 from both retroactively accounted periods is transferred to wage type /552 in the current period.

Processing Retroactive Accounting in the Schema



<u>XRRO</u>				<u>International retroactive accounting</u>
IF		O		Original payroll?
PDT	X041	GEN	NOAB	Provide differences received
ELSE				Retroactive accounting
ACTIO	X048			Reset BTEX
LPBEG		RC		Loop over old results
IMPRT		O		Import last payroll run
PORT	X042	GEN	NOAB	Create differences and transfer wage types that cannot be revised
PIT	X047			Cumulate new payment amount
BTFIL				Transfer BT from last payroll results
LPEND				End of loop
IF		LPCR		Did the program run through the loop?
PIT	X043			New amount to data medium
ELSE				No
PIT	X047			Cumulation of new payment amount
PIT	X043			Write new amount to data medium
ENDIF				Re: Did program run through loop?
ENDIF				End of retroactive accounting

Figure 136: Retroactive Accounting in the Schema

This subschema is used to calculate any differences that may have been created if payroll takes place in a period for which retroactive accounting has been performed so that remuneration is no longer consistent with the original payroll run. The differences calculated are then taken into account in the same subschema in the original payroll run for the current period.

The subschema primarily comprises the following steps:

Query whether original or retroactive run is being carried out.

Original payroll run: Provide differences received.

Retroactive run: Read last payroll result (original payroll run or old retroactive accounting run).

Print the values read (internal table ORT).

Create differences and transfer non-revisable wage types.

Derive new payment amount.

Store new payment amount in difference table (internal table DT).

Transfer bank transfer(s) (from internal table BT) from last payroll result.



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

An employee at your company receives a basic pay raise in payroll period 03 that is backdated to the middle of period 02. This means that the amount in period 02 must be recalculated in a retroactive accounting run. Discuss how you will do this.



Lesson Summary

You should now be able to:

- Identify the characteristics of retroactive accounting
- Identify the tasks that need to be performed while processing retroactive accounting



Unit Summary

You should now be able to:

- Identify the characteristics of retroactive accounting
- Identify the tasks that need to be performed while processing retroactive accounting



Test Your Knowledge

1. The statutory net amount for the period calculated retroactively is the difference of the statutory net amount for both partial periods of this payroll period.

Determine whether this statement is true or false.

- ☐ True
- ☐ False

2. Arrange the following steps in the order of execution in a subschema.

1. Query whether original or retroactive run.
2. Create differences and transfer non-revisable wage types.
3. Print the values read (internal table ORT).
4. Store new payment amount in differences table (internal table DT).

Choose the correct answer(s).

- ☐ A 1-2-3-4
- ☐ B 1-3-2-4
- ☐ C 4-3-2-1
- ☐ D 1-4-2-3



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Answers

1. The statutory net amount for the period calculated retroactively is the difference of the statutory net amount for both partial periods of this payroll period.

Answer: False

The statutory net amount for the period calculated retroactively is the total of the statutory net amount for both partial periods of this payroll period.

2. Arrange the following steps in the order of execution in a subschema.
 1. Query whether original or retroactive run.
 2. Create differences and transfer non-revisable wage types.
 3. Print the values read (internal table ORT).
 4. Store new payment amount in differences table (internal table DT).

Answer: B

The subschema consists of the following steps:

1. Query whether original or retroactive run.
2. Prints the values read (internal table ORT).
3. Creates differences and transfer non-revisable wage types.
4. Store new payment amount in differences table (internal table DT).

Unit 14



Mini Case Study HR400



Unit Overview

Make the most important settings for payroll



Unit Objectives

After completing this unit, you will be able to:

- Make the most important payroll settings

Unit Contents

Lesson: Mini Case Study HR400350

Lesson: Mini Case Study HR400



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Lesson Duration: 120 Minutes

Lesson Overview

This case study allows you to go over some of the most important elements of the payroll part of your training.



Lesson Objectives

After completing this lesson, you will be able to:

- Make the most important payroll settings



Business Example

You want to adapt the payroll schemas and wage types to meet the needs of your company.

1. Your main schema (Z0##) is to be further modified. Include a copy of your subschema ZT## with the name ZTy (yy= 30+##). Copy the personnel calculation rule X010 and replace the original with the copy in the subschema ZT##.
2. All the primary wage types that are coded with the value 3 in processing class 01 are written to the wage type /002 with only half of the amount.
3. When valuating the wage type, also differentiate by employee subgroup. For the employees from your employee subgroup, the wage types that are coded with the value 3 in processing class 01 are written to /001 with double value.
4. You want to generate a wage type automatically if the employee worked overtime between 6am and 8am. The wage type is to be valuated with the valuation basis /001 and a derived wage type created with a bonus of 10% from /002.

Copy two wage types:

- a) Wage type 3##1 → 3zz1 zz = 30 + ##
- b) Wage type 3##5 → 3zz5 zz = 30 + ##



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.



Lesson Summary

You should now be able to:

- Make the most important payroll settings

Related Information

- Use a URL or cross-reference tag to point out additional information that the participants may find useful, such as Web sites or white papers. Delete this if not applicable.



Unit Summary

You should now be able to:

- Make the most important payroll settings

Unit 15



Introduction



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

This unit provides you with an overview of the business use of the Organizational Management component. The various interfaces are introduced and explained in context. A concise overview of integration with other components is also provided.



Unit Objectives

After completing this unit, you will be able to:

- Describe the business benefits of Organizational Management
- List the user interfaces used to maintain your organizational plan in Organizational Management
- Describe the points of integration with other SAP components

Unit Contents

Lesson: Introduction356

Lesson: Introduction

Lesson Duration: 30 Minutes

Lesson Overview

This unit provides you with an overview of the business use of the Organizational Management component. The various interfaces are introduced and explained in context. A concise overview of integration with other components is also provided.

**Lesson Objectives**

After completing this lesson, you will be able to:

- Describe the business benefits of Organizational Management
- List the user interfaces used to maintain your organizational plan in Organizational Management
- Describe the points of integration with other SAP components



For more information, see the instructor guide in SAPNet.

Business Example

You are an Organizational Planner in the HR department of a company. You are responsible for overseeing the implementation of Organizational Management and the creation and maintenance of the company's organizational plan.



Figure 137: What is Organizational Management?

Organizational Management enables you to do the following:

- You can model the functional organizational structure (department hierarchy, for example) and the reporting structure of your enterprise as an organizational plan.
- You can analyze your current organizational plan according to your requirements and, on this basis, perform workforce requirements and personnel cost planning.
- Create further organizational plans as planning scenarios, in order to simulate new structures in the framework of Business Process (Re-)Engineering.
- You can guarantee effective Workflow Management by accessing the organizational plan.

Organizational Management includes various user interfaces, with which you can create and edit different structures.



You can maintain your organizational plan in **Organizational Management** using several different user interfaces. These interfaces will be discussed in this course.



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Figure 138: User Interfaces in Organizational Management

The *Organizational Management* component includes numerous interfaces with which structures can be processed.

The *Organization and Staffing* interface enables you to create and process your organizational plans. It is suitable for the daily maintenance of organizational plans.

The *interfaces* in *Expert Mode* allow you to edit the properties of all objects in Organizational Management via infotypes.

Simple Maintenance is ideal for quickly creating and structuring a new organizational plan.

The *General Structures* interface allows you to edit various organizational plans with any structure including object types that you have defined yourself (such as teams).

The *Matrix* interface is for creating and editing matrix structures. It enables you to depict responsibilities that overlap in the system.

Manager's Desktop provides managers at your company with an effective reporting and maintenance tool. It facilitates the decentralization of personnel management responsibilities to your line managers. Manager's Desktop contains cross-component functions from Human Resources and Accounting.

Manager Self-Service is part of the mySAP Enterprise Portal. It provides your managers with applications regardless of the system. In the Human Resources part, it includes reports and maintenance functions for managers.



Figure 139: Integration

The *Organizational Management* component is an integral part of the R/3 system and interfaces with the other components named above, in some cases, it is a prerequisite for using the component properly and completely.

Integration between *Organizational Management* and *Personnel Administration* is described in the relevant unit.

Using the *Personnel Development* component, you can plan and carry out training and job-related activities which provide individual professional development for your employees.

Training and Event Management enables enterprises to organize and schedule training events and conventions.

The *Workflow* component automates business processes so tasks are given to the right person at the right time.

The *Compensation Management* component includes all functions required for the administration of compensation (carrying out a salary review, for example).

The *Personnel Cost Planning* component enables you to project personnel costs on the basis of existing and planned organizational units.

The ability to relate cost centers with elements in the organizational plan directly, allows integration with *Controlling*.

Shift Planning is used to schedule the optimum number of appropriately qualified personnel on the basis of job requirements.

Capacity Planning is a Logistics component which is used to schedule persons on the basis of their availability and qualifications to complete work for specific work centers.

Manager's Desktop and *Manager Self-Service* support managers in their administrative and strategic daily tasks.



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.



Lesson Summary

You should now be able to:

- Describe the business benefits of Organizational Management
- List the user interfaces used to maintain your organizational plan in Organizational Management
- Describe the points of integration with other SAP components



Unit Summary

You should now be able to:

- Describe the business benefits of Organizational Management
- List the user interfaces used to maintain your organizational plan in Organizational Management
- Describe the points of integration with other SAP components



Test Your Knowledge

1. The *Expert Mode: Infotype Maintenance* interface is suitable for depicting large structures.

Determine whether this statement is true or false.

- ☐ True
- ☐ False

2. The *Organization and Staffing* interface is best suited for creating large structures.

Determine whether this statement is true or false.

- ☐ True
- ☐ False

3. The *General Structures* interface can depict each object type in a structure.

Determine whether this statement is true or false.

- ☐ True
- ☐ False

4. Which of the following applications is not integrated with Organizational Management?

Choose the correct answer(s).

- ☐ A Personnel Administration
- ☐ B Workflow Management
- ☐ C Time Management
- ☐ D Personnel Cost Planning
- ☐ E Capacity Planning



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Answers

1. The *Expert Mode: Infotype Maintenance* interface is suitable for depicting large structures.

Answer: False

This interface allows you to edit individually selected objects in detail. It is not suitable for maintaining structures as it does not offer a view of the structure.

2. The *Organization and Staffing* interface is best suited for creating large structures.

Answer: False

This interface allows you to edit the most important information about individual objects in the organizational plan. It is not as suitable for creating structures as the *Expert Mode: Simple Maintenance* interface, since it is more performance intensive and its design lends itself more to editing individual objects.

3. The *General Structures* interface can depict each object type in a structure.

Answer: True

The interface allows you to call any defined structure starting from a selected start object. Structures are defined using evaluation paths. See the unit "Object Relationships" and "Setting Up General Structures and Evaluation Paths".

4. Which of the following applications is not integrated with Organizational Management?

Answer: C

Time Management is not directly integrated with Organizational Management although it can be connected with Organizational Management via Shift Planning.

Unit 16



Concepts of Organizational Management



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

The Concepts of Organizational Management unit provides basic information about the Organizational Management data model and all other Personnel Planning components. It discusses the most common object types, relationships and planning options used in Organizational Management.



Unit Objectives

After completing this unit, you will be able to:

- Describe object-oriented design
- Explain the most commonly used object types
- Describe the Customizing of object types
- Describe the connection between object relationships and object-oriented design
- List the most important object relationships
- Explain the connection between object relationships, evaluation paths, and the organizational plan
- Describe the planning options in Organizational Management
- Explain how plan versions, planning status, and validity periods are used
- Outline the concepts of time constraint and inheritance

Unit Contents

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Lesson: Object Types



320

Lesson Duration: 30 Minutes

Lesson Overview

This lesson provides you with a short overview of the data model and the organizational model design. The most important object types are introduced together with the Customizing of object types.



Lesson Objectives

After completing this lesson, you will be able to:

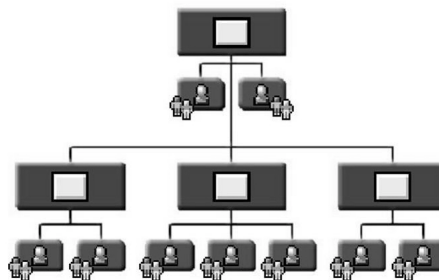
- Describe object-oriented design
- Explain the most commonly used object types
- Describe the Customizing of object types



For more information, see the instructor guide in SAPNet.

Business Example

Your company has decided to implement Organizational Management. You need to understand the concepts and structures so that you can supervise the creation and maintenance of your company's organizational plan in the system.



- Depict various structures (organizational and reporting)
- Depict for specific periods
- Flexible to value and analyze
- Means of planning organizational changes
- Basis for implementing or using other components, such as Personnel Development, Compensation Management, and Workflow

Figure 140: Concepts of Organizational Management

Using Organizational Management, you can:

- Create a complete model of the organizational and reporting structures of your enterprise for a specific period.
- You can obtain an overview of the current status of your organizational and reporting structures at any time using several methods.
- You can plan and simulate future scenarios.

Organizational Management provides a basis for other Human Resources components, such as Personnel Development, Compensation Management, and cross-application components (Workflow, for example).

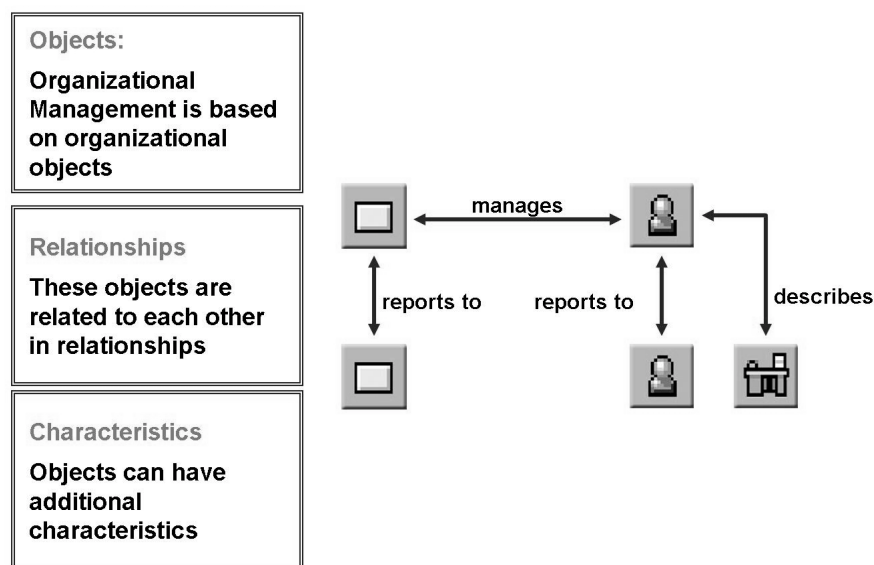


Figure 141: Methodology: Object-Oriented Design

Organizational Management is based on *object-oriented design*, that is, each element in an organization represents a stand-alone object with individual characteristics. These objects are created and maintained individually. They are then linked together using *Relationships*, such as those indicated above, to form a network that has the flexibility to perform human resources planning, forecasting, and reporting.

You can create additional *object characteristics*. This provides additional information for other components, evaluations, and so on.

All object characteristics (existence/relationships/characteristics) are maintained in infotypes.



There are five basic object types.
Each has its own object type key.






Object Type	Object Type Key	Object Icon
Organizational unit	O	
Job	C	
Position	S	
Cost center	K	
Person	P	

Figure 142: Object Types

Although an organizational plan can consist of many object types, the five basic object types are the building blocks.

- Positions S
- Persons P
- Organizational Units O
- Jobs C
- Cost Centers K

Persons are the holders of a position. Positions are defined and assigned to organizational units and cost centers.



Organizational units describe the various units of your company. They are structured according to task and function-related aspects.

Together, several organizational units and their hierarchical relationships form an **organizational structure**.

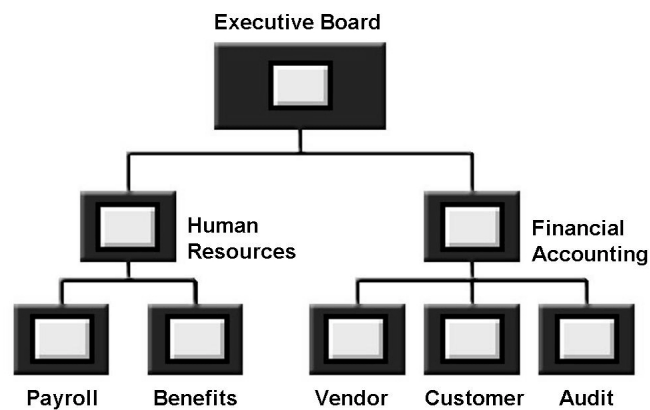


Figure 143: Object Types: Organizational Units

Organizational unit: Object type key “O”

Organizational units are units of your company that perform a function. According to how tasks are allocated in your company, these units can be departments, groups or project teams, for example.

A distinction must be made between organizational units and other enterprise structures, also referred to as organizational levels, such as personnel area, company code, and business area. These are used to model structures in Personnel Administration or Accounting, for example.

You create the organizational structure of your company by relating organizational units to one another. These relationships can be in a hierarchy or a matrix. This allows you to create organizational structures in a hierarchy or matrix.

The organizational structure is the basis for the creation of an organizational plan.

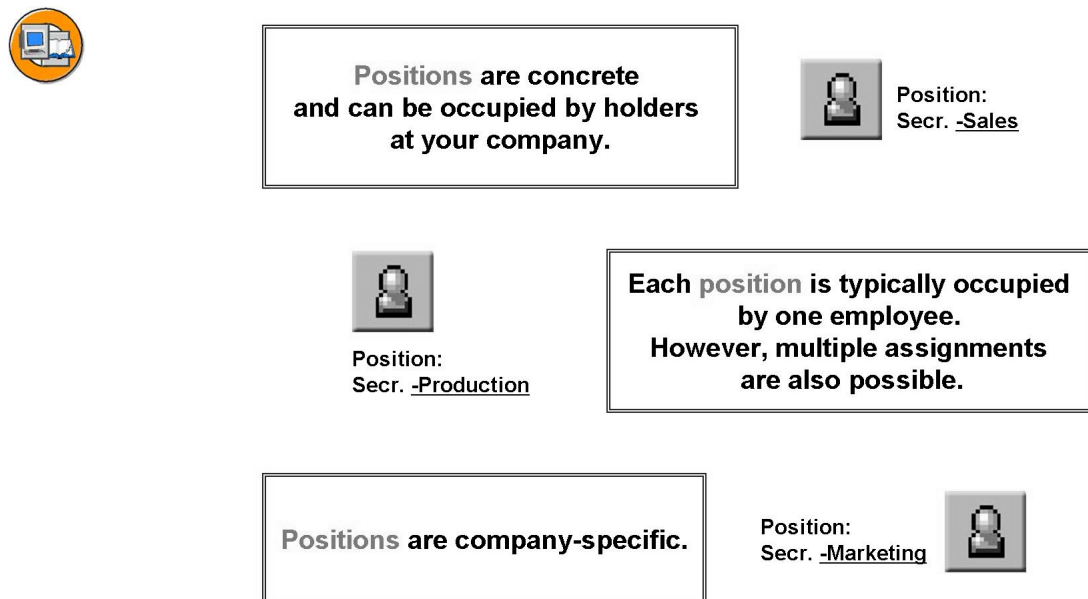


Figure 144: Object Types: Positions

Position: object type key “S” (specification)

Positions are concrete and can be or are occupied by holders (employees or SAP R/3 users).

Positions can be 100% filled, partially filled or vacant.

One position may also be shared by several employees, each working less than full time. For example, two employees can hold 60% and 40% of one position.

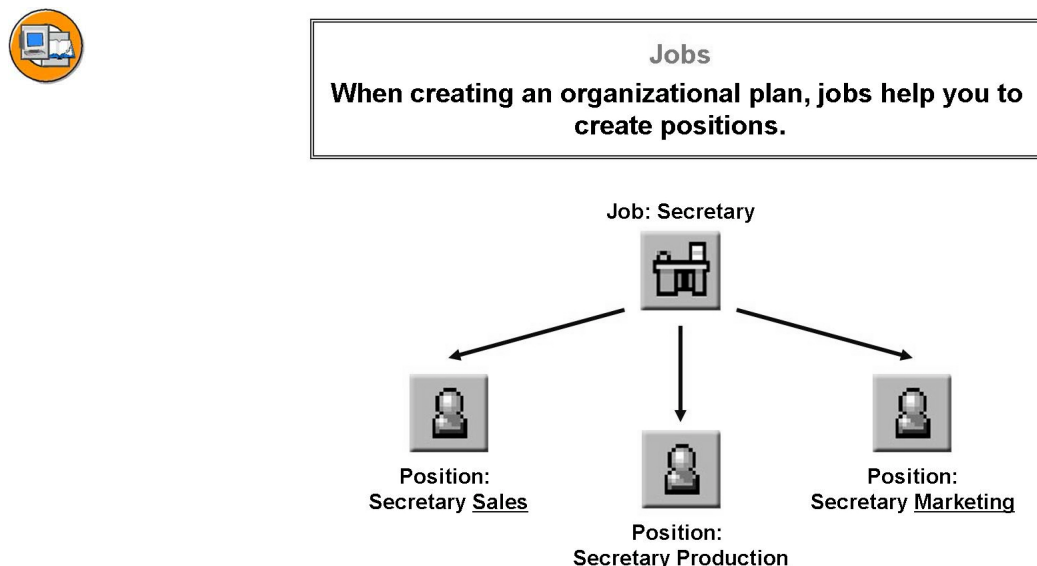


Figure 145: Object Types: Jobs

Object type key C (classification) is used for object type Job.

Jobs are general classifications for sets of functions (Manager, for example).

If you create a new position (manager of *US Sales Office*, for example), the position must be related to the corresponding job (manager, for example). A job describes a position. Through this relationship, the position automatically inherits the tasks, qualifications, characteristics assigned to the job. This significantly reduces data entry time, since characteristics do not have to be assigned to each position separately. Instead, they are inherited via the descriptive job.

Specific tasks, qualifications, and characteristics can be assigned directly to positions.

Jobs are also important in the following components:

- Shift Planning
- Personnel Cost Planning
- Career and Succession Planning
- Compensation Management

When you create jobs, they are listed in a job index. A job index is a list of jobs maintained for an enterprise.



Cost centers can be related to organizational units and positions.

The relationship between organizations and cost centers is hierarchically inherited along the structure.

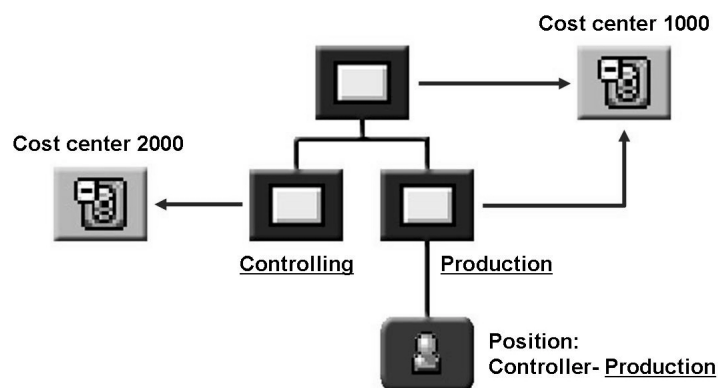


Figure 146: Object Types: Cost Centers

Object type key K is used for object type Cost Center.

Cost centers are maintained in Financial Accounting and are linked to either organizational units or positions.

Cost center assignments are inherited along the organizational structure.



Persons are objects that hold positions within the organizational structure. Additional information for persons is maintained in Personnel Administration.

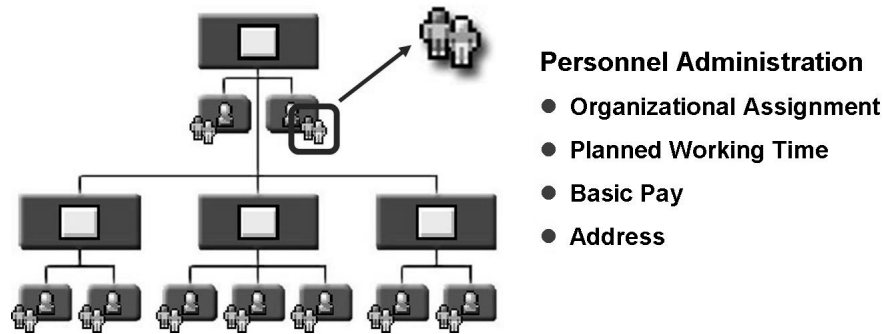


Figure 147: Object Types: Persons

Object type key P is used for object type Person.

Persons generally represent employees in your company and hold positions in Organizational Management.

The characteristics of persons are maintained in Personnel Administration. Persons are linked to an organizational plan via their assignment to a position.

The *Organizational Assignment* infotype in Personnel Administration contains the position assignment and, if integration is active between Organizational Management and Personnel Administration, the defining job, organizational unit, and cost center assignment.

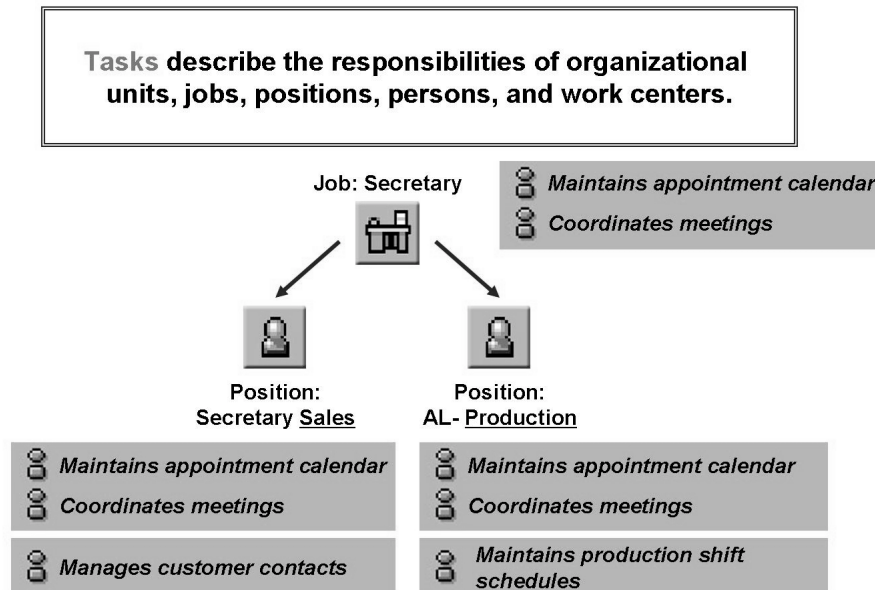


Figure 148: Other Object Types: Tasks

Object type key T is used for object type Task.

Tasks can be classified under two aspects:

- As part of workflow for monitoring cross-application processes (new workflows are created with the object type TS, as opposed to the object type T).
- As personnel management tools, to describe jobs and positions (described later).

For personnel management purposes, tasks are individual duties and responsibilities that must be undertaken by employees.

Examples of tasks include answering the telephone, developing marketing material, and appraising applicants.

You can create single tasks or task groups. Single tasks are individual activities, task groups are activities that are routinely performed together. All tasks are contained in a task catalog. The catalog also displays the relationships that exist between different tasks, as long as task groups are defined.

If you plan to relate tasks to positions, you should first relate the tasks that all positions have in common to the corresponding job. When you create a position based on a job, the tasks will then automatically be transferred to the position. If you assign the same tasks to different jobs, you can use different weightings, which gives you more information when analyzing job descriptions.



Work centers describe the physical location where tasks are carried out.

Examples:

- Plant A
- Philadelphia Branch Office
- Work center C, Room 34



Work centers can be as general as a geographical location or precisely defined.

Figure 149: Other Object Types: Work Centers

Object type key A is used for object type Work Center.

Work centers describe the specific physical locations where tasks are carried out.

A work center can be determined using a general location description (for example, Philadelphia Branch Office). However, it can contain an exact description of the location, such as a specific desk with specific equipment in a specific building. Exact work center definitions of this kind are particularly useful in a production plant.

Several positions can share one work center. For example, the *Reception* work center can be assigned to two positions whose holders are assigned to different shifts.

When you have created work centers, you can describe their attributes. You can define restrictions or specify certain examinations that have to be completed at regular intervals.

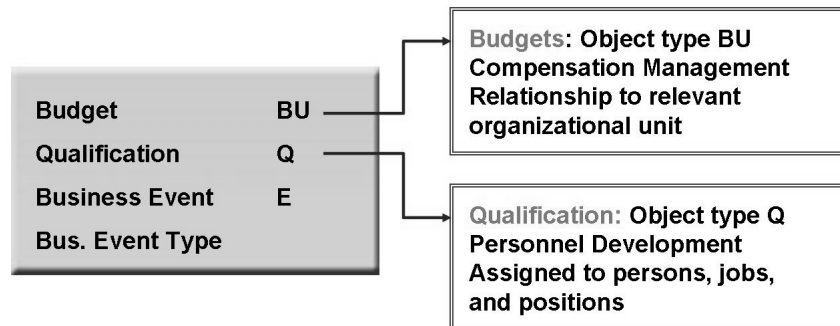


Figure 150: Other Object Types

Other object types such as qualifications or budgets can be used in Organizational Management to further define the organizational plan.

Some object types are not applicable in Organizational Management though they are defined in the same tables as the Organizational Management objects.

For example:

Object types D, E, F & G are similar in nature to Organizational Management object types, but are only applicable to Training and Event Management.



You can create and maintain object types in the Implementation Guide (IMG) for Organizational Management.

Object Types		
	O	Object type text
	A	Work center
	AC	Standard role
	AP	Applicant
	B	Training program
	C	Job
	D	Business event type

- Essential relationships
- External object types

Figure 151: Object Maintenance

You can change standard object types or create new ones. When doing so, you can define the following:

Essential relationship

The essential relationship determines the relationship type that has to be created when you create an object in expert mode.

External object types

You specify the interface program used for reading and using external object types.

Structure Search

You specify the evaluation path used in the structure *Search Search* help for the various object types.

You can create two-digit object types in the customer namespace range of 01 to 99.



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Exercise 19: Object Types

Exercise Duration: 5 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- List the most commonly used objects in Organizational Management.

Business Example

Before you create an organizational plan, you must understand how the Organizational Management objects and relationships will best represent the structure of your organization.

Task:

Organizational Management objects and relationships

1. List the five basic object types in Organizational Management.

Solution 19: Object Types

Task:

Organizational Management objects and relationships

1. List the five basic object types in Organizational Management.

Answer:

1. O Organizational unit
2. C Job
3. S Position
4. K Cost center
5. P Person



Lesson Summary

You should now be able to:

- Describe object-oriented design
- Explain the most commonly used object types
- Describe the Customizing of object types

Lesson: Object Relationships



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Lesson Duration: 30 Minutes

Lesson Overview

This lesson focuses on object relationships (IT1001). Object relationships reflect the use of organizational objects and thereby give them significance. At the end of the lesson, we explain how to use object relationships to create structures in Organizational Management. The terms organizational plan and evaluation path are introduced.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the connection between object relationships and object-oriented design
- List the most important object relationships
- Explain the connection between object relationships, evaluation paths, and the organizational plan



For more information, see the instructor guide in SAPNet.

Business Example

Your company has decided to implement Organizational Management. You need to understand the concepts and structures so that you can supervise the creation and maintenance of your company's organizational plan in the system.

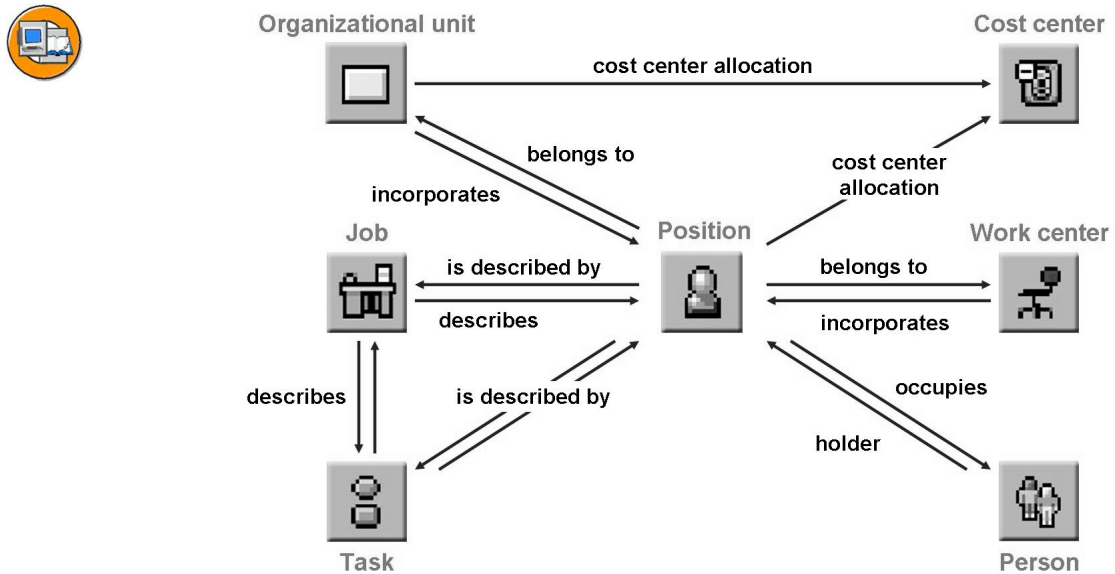


Figure 152: Object Relationships: Data Model

Data model:

- Objects are linked through relationships.
- You create relationships between the individual elements in your organizational plan. Several linked objects can represent a structure. There are different types of relationships as the type of connections between elements vary.
- The relationships used between standard object types are defined in the SAP standard system and should not be changed.

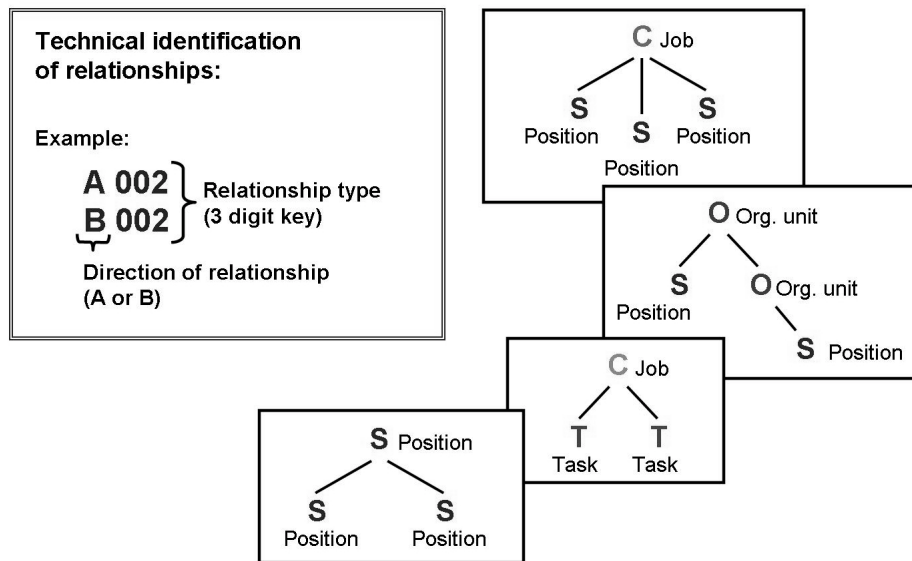


Figure 153: Object Relationships: Identification

Each standard relationship has a three-digit key.

You can define your own relationships. The namespace AAA to ZZZ is reserved for customer-specific relationships.

Relationships between objects are reciprocal. If a job describes a position, then the position, in turn, will be described by the job. The direction of these relationships is distinguished using the identification *A* or *B*.

It is, therefore, necessary to create a relationship in only one direction. The inverse relationship will be created automatically by the system.

A relationship can also be one-sided. Relationships to objects of an external object type (cost center in Controlling, for example), are often one-sided, that is, they go in only one direction.



- An **organizational unit** reports to another organizational unit.
- An **organizational unit** is the line manager of another organizational unit.

A 002

B 002

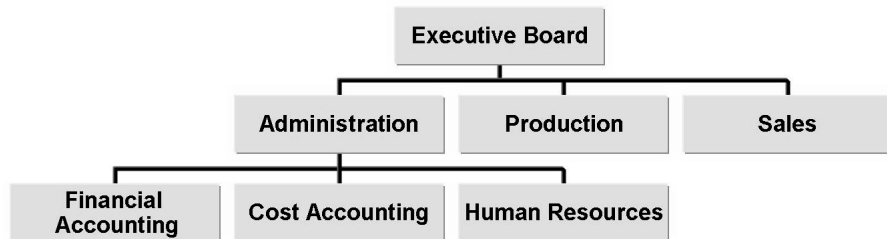


Figure 154: Object Relationships: Organizational Units

By creating these relationships between organizational units, you create an organizational structure.

An organizational unit could have many subordinate organizational units, but has only one superior unit.

Other relationships between organizational units:

- A/B003 “Belongs to/Incorporates” (can be used to depict a matrix structure)



- A **position** belongs to an organizational unit.
- An **organizational unit** incorporates a position.

A 003

B 003

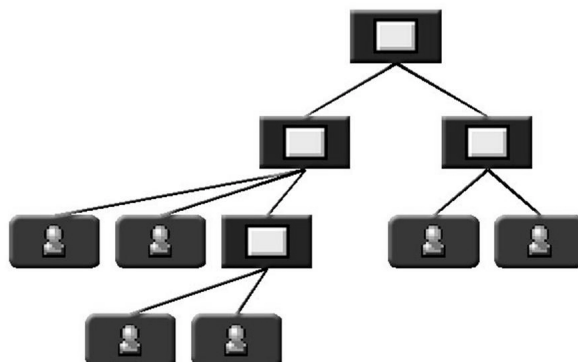


Figure 155: Object Relationships: Organizational Units and Positions

Positions are related to organizational units in the organizational plan. They inherit certain characteristics of the organizational unit such as cost center assignment or working time.

When a person holds a position, they also inherit some of the characteristics of the related organizational unit.



- A job describes a position.

A 007

- A position is described by a job.

B 007

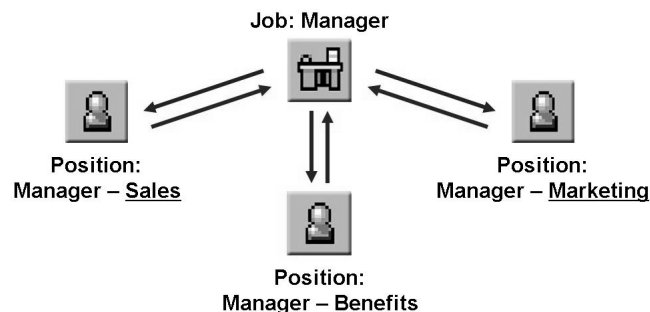


Figure 156: Object Relationships: Jobs and Positions

When a position is described by a job it inherits the characteristics of the job such as associated tasks or qualifications.

A job may describe several positions but a position may only be described by one job.



- A person is assigned as the holder of a position.

A 008

- A person is the holder of a position.

B 008

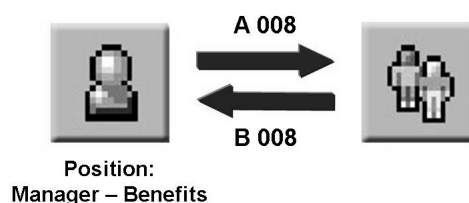


Figure 157: Object Relationships: Positions and Persons

The position is the object that links persons or users to the organizational plan.

A position can be held by more than one person or user and a person can hold more than one position. However, a one-to-one ratio is the ideal.

Other relationships between positions and persons:

- A/B009 “Successor”
- A/B009 “Substitute”



- An organizational unit or a position is assigned to a **cost center**.

A 011

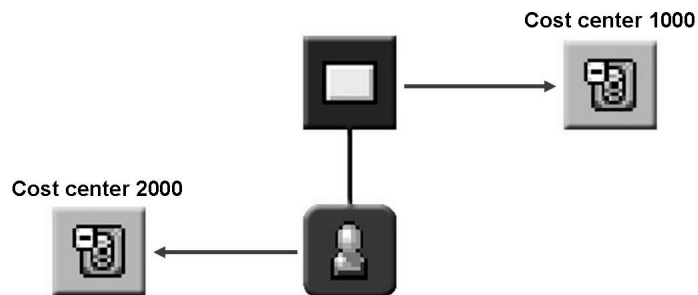


Figure 158: Object Relationships: Cost Centers



- A position manages an organizational unit.

A 012

- An organizational unit is managed by a position.

B 012

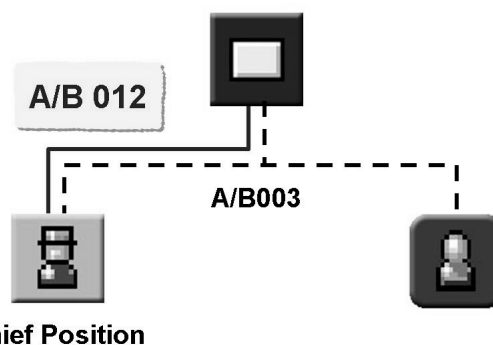


Figure 159: Object Relationships: Chief Position

In the standard system, the relationship A/B012 “manages” or “is managed by” is used to indicate that a position is responsible for managing an organizational unit. This relationship is also created for A/B003 between the *Chief Position* and its higher-level organizational unit.



- **A position reports to another position.**

Example: The position *Payroll Administrator* “reports to” the *Payroll Manager*.

A 002

- **A position is the line manager of another position.**

Example: The *Payroll Manager* is the line manager of the *Payroll Specialists*.

B 002



Figure 160: Object Relationships: Positions

The relationships between positions form a reporting hierarchy, which can be evaluated separately from the organizational structure.

In some organizations, the reporting structure is based on the assignment of positions to organizational units. That is, it depicts the specialist or disciplinary relationship of one position to another. If this is true for your company, you do not need an additional reporting structure.

If, however, the actual reporting structure of your enterprise differs from the reporting structure based on the organizational structure, you can model it with these relationships.

Other relationships between positions:

- A/B004 “Is subordinate to (disc.)/Is disc. supervisor of”
- A/B210 “Substitutes with profile/Substitutes with profile” (Workflow)



Relationship	Relationship Bottom Up	Relationship Top Down	
*			▲
001	Is a subarea of	Is subdivided into	▼
002	Reports (line) to	Is line manager of	
003	Belongs to	Incorporates	

- Relationship characteristics
- Allowed relationships
- External relationships
- Time constraints

Figure 161: Maintaining Relationships

Relationships are subtypes of the *Relationships* (1001) infotype.

Relationship Properties

You can control the response of the system (error messages, warnings, information) if the 100% mark is exceeded in the case of "weighted" relationships.

Additional relationship information

You can determine whether additional relationship information can be maintained and whether the weighting percentage of a relationship should be shown or hidden. Additional information that is customer-specific can only be entered for customer-specific relationships and then only by agreement with SAP.

Allowed Relationships

You can define the object types that are allowed for each relationship type.

External Relationships

External relationships are relationships that are not stored in the *HRP1001* database.

Time Constraints

You must assign a time constraint to each relationship, depending on the object type. If the time constraint should also be dependent on the target object type, you must maintain this setting in the step *Define Time Constraint Dependent on Target Object Type*.



- Task and function-related organizational model
- Organizational model structured according to financial or geographic criteria
- Model of the reporting structure
- Model of alternate reporting structures

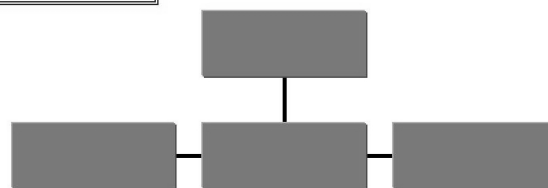
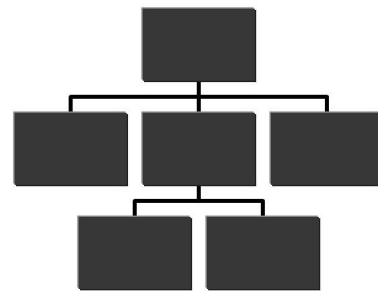


Figure 162: Structures in Organizational Management

The organizational plan enables you to create a model of the structure of your company based on the tasks and functions carried out. You decide which areas of your enterprise you want to include in the organizational plan.

In addition to a one-dimensional hierarchical organizational plan or reporting structure, you can also create a multi-dimensional matrix organization.



The relationships between the basic objects result in the following structures:

- Organizational structure
- Reporting structure
- Staff assignments

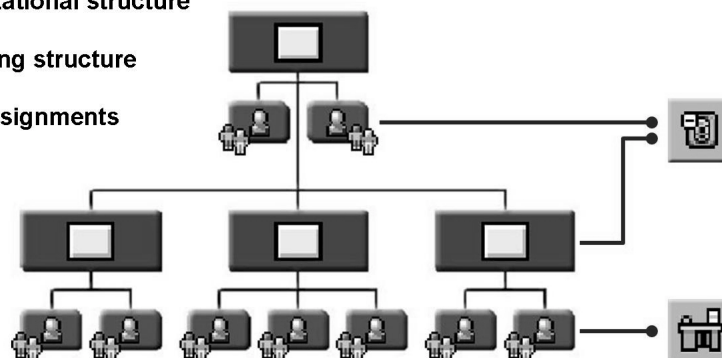


Figure 163: Object Relationships: The Organizational Plan

The organizational plan provides a dynamic way of representing your enterprise as a structure – it changes as your company changes.

The *Organizational Structure* depicts the assignment of the organizational units to one another. You create an organizational structure by creating and maintaining organizational units, which you then relate to each other. The organizational structure is the basis for the creation of the organizational plan.

If the actual reporting structure of your enterprise differs from the organizational structure, and the relationships between positions are one-dimensional and hierarchical, you can depict them in a *Reporting Structure*.

Staff assignments represent the assignment of positions to organizational units and the relationships between positions and persons. You create staff assignments by creating positions (based on jobs), assigning them to an organizational unit and allocating them a position holder.

Each of these structures is displayed using an evaluation path.



An evaluation path represents a chain of relationships between particular object types.

Example:

O-S-P Staff assignments along organizational structure

O B003 S
S A008 P
O B002 O

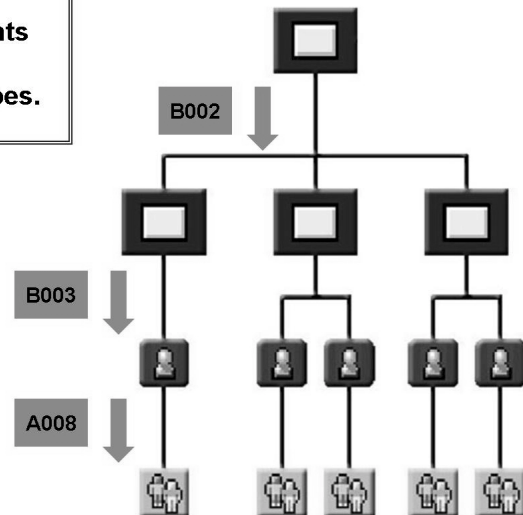


Figure 164: Evaluation Paths

Evaluation paths define how a structure is to be created. Because objects can have multiple relationships, it is not always possible for them all to be included in a single view.

In Customizing you can specify which objects, with which relationships, and in which order, the evaluation path selects. The standard SAP R/3 System delivery already includes settings for standard reports.

Example: To view Staff assignments along the organizational structure you would start with an organizational unit and identify relationships to positions then, from the positions, identify persons holding those positions. After the cycle is finished you go to any subordinate organizational units and start the cycle again.

The *General Structures and Matrix Organizations* focuses on the Customizing of evaluation paths in more detail.



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Exercise 20: Object Relationships

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- List the most commonly used object relationships in Organizational Management.

Business Example

Before you create an organizational plan, you must understand how the Organizational Management objects and relationships will best represent the structure of your organization.

Task:

1. Which basic object types can you link using the following relationships? What are the names of these relationships? Name examples.

Relationship	Objects (Examples)	Relationship Name
A/B 007		
A/B 003		
A 011		
A/B 002		
A/B 008		

Solution 20: Object Relationships

Task:

- Which basic object types can you link using the following relationships? What are the names of these relationships? Name examples.

Relationship	Objects (Examples)	Relationship Name
A/B 007	<u>C - S / S - T / C - T</u>	<u>Describes/is described by</u>
A/B 003	<u>O - S</u>	<u>Belongs to/incorporates</u>
A 011	<u>O - K / S - K</u>	<u>Cost center assignment</u>
A/B 002	<u>O - O / S - S</u>	<u>Reports to/is line manager of</u>
A/B 008	<u>S - P / S - US</u>	<u>Holder</u>

- You can check this in Customizing, under

*IMG → Personnel Management → Organizational Management
→ Basic Settings → Data Model Enhancement → Relationship
Maintenance → Maintain Relationships*

Select an entry such as 002 and double-click on *Allowed Relationships* in the *dialog structure*.



Lesson Summary

You should now be able to:

- Describe the connection between object relationships and object-oriented design
- List the most important object relationships
- Explain the connection between object relationships, evaluation paths, and the organizational plan

Lesson: Object Properties and Planning Options



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Lesson Duration: 30 Minutes

Lesson Overview

This lesson explains the options available for depicting future-oriented structures or plans in Organizational Management. In this context, the object properties are discussed in terms of infotypes. You obtain an overview about how to use plan variants, plan statuses, and validity periods for planning in Organizational Management. The concepts of time constraints and inheritance are also introduced.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the planning options in Organizational Management
- Explain how plan versions, planning status, and validity periods are used
- Outline the concepts of time constraint and inheritance



For more information, see the instructor guide in SAPNet.

Business Example

Your company has decided to implement Organizational Management. You need to understand the concepts and structures so that you can supervise the creation and maintenance of your company's organizational plan in the system.



Organizational Management enables you to depict your company in the past, present, and future. You can use various methods to do this:

- Validity periods
- Plan Version
- Plan status

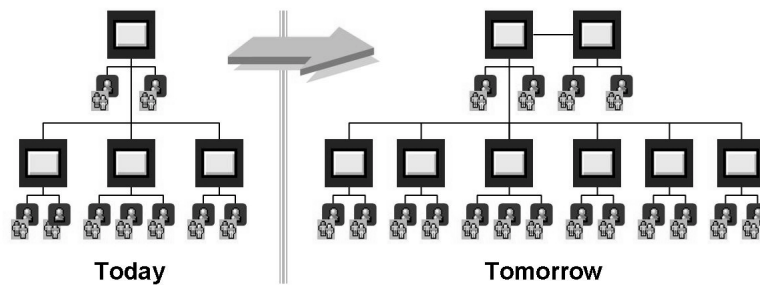


Figure 165: Planning in Organizational Management

An enterprise's organizational structure is displayed on the left side of the graphic as it currently exists. Using the *Organizational Management* component, any type of enterprise restructuring or reorganization can be planned and then reproduced in the system.

This enables you to prepare for future staff requisitions or changes and, thereby, respond accordingly.



Plan versions allow you to depict alternative plans in the system. However, only one plan version can be integrated.

P...	Plan version	Active	Current
..	Never use	<input type="checkbox"/>	<input type="checkbox"/>
00	Templates	<input type="checkbox"/>	<input type="checkbox"/>
01	Current plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AS	Acquisition scenario	<input type="checkbox"/>	<input type="checkbox"/>
DS	Downsizing scenario	<input type="checkbox"/>	<input type="checkbox"/>
25	Plan version 25	<input type="checkbox"/>	<input type="checkbox"/>
FY	Fiscal year-end closing scenario	<input type="checkbox"/>	<input type="checkbox"/>
TP	Benefits plan	<input type="checkbox"/>	<input type="checkbox"/>

PLOGI	PLOGI	01	Integration Plan Version/ Active Plan Version
-------	-------	----	---

Figure 166: Methodology: Plan Versions

Plan versions allow you to manage several organizational plans in the system at the same time. You can use plan versions to simulate and compare various scenarios.

Only one of these plan versions represents the valid organizational plan, and is flagged as the *active or integrated* plan version. You should define the active plan version when you integrate the SAP system. As a rule, you cannot change the active plan version at a later time. If integration is active, the plan version you select here as active is the integration plan version, regardless of the system. In the parameter group *PLOGI PLOGI*, enter the plan version that is to be the active plan version in the *Semantic Abbreviation Value* field.

Plan versions exist independently of each other. They can be created as a copy of the original plan in statements using report *RHCOPL00 Copy Plan Version*. You can change this copy independently of the valid plan. While this option is advantageous, it does, however, mean that handling plan versions is more complicated. After the copy is created, both plan versions develop independently of one another. Consequently, the best copy is out-of-date after a matter of hours or days. Report *RHCOPLPT Reconcile Plan Version* supports you when transferring data from an inactive plan version to the active and integrated plan version. Nevertheless, this report is not able to update personal data in infotype 0001. This can lead to inconsistencies in the integration between Personnel Administration and Personnel Planning (SAP Note 354019).

The current plan version is the plan version that you are currently working on in the system. You can use the *OM_FRAM_PLVAR_DISP* switch in the user profile to display the active plan version on the *Change Organization and Staffing* interface.



Hint: You must not use or delete the plan version “..” since it is used to transport data to other clients or systems.

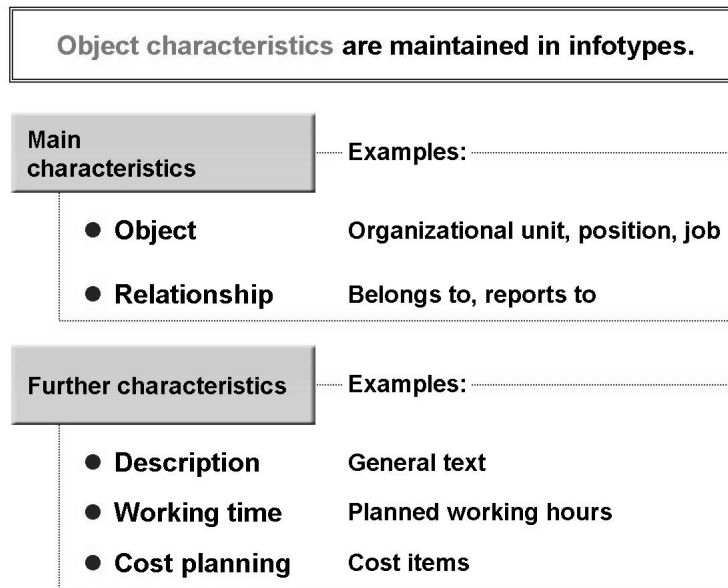


Figure 167: Object Characteristics: Infotypes

The Object (IT1000) and Relationships (IT1001) infotypes are the two most important infotypes and are, therefore, referred to as the main properties:

- The Object infotype includes: ID number, short and long text, validity period, and plan status. This infotype is used to define the existence of the object.
- The Relationships infotype relates the objects with other objects. This infotype provides the individual objects with their relevance in the system.

The other infotypes enable you to define particular business characteristics for an object.

Some infotypes can be maintained for all object types, for example the *Object* and *Relationships* infotypes. Others are only relevant for particular object types. The *Vacancy* infotype is relevant only for positions and the *Character* infotype only for tasks, for example.

Not all infotypes are absolutely necessary. However, they can provide important information about objects.



When an object is created, an object ID must be assigned.

- **Internal number assignment:**
automatic allocation of object ID by the system
- **External number assignment:**
allocation of object ID by an administrator

Number Range					
No.	From Number	To Number	Current Number	Ext.	
EX	00000001	49999999	EX	<input checked="" type="checkbox"/>	▲
IN	50000000	99999999	50010406	<input type="checkbox"/>	▼

Figure 168: Object Characteristics: Object ID

An object ID must be assigned for every object. The object is identified by a combination of plan version, object type, and object ID.

Object IDs are numeric. They cannot contain any letters.

The object ID number can be assigned via internal or external number assignment exist:

- Internal assignment - the system automatically assigns the object being created an object ID from the corresponding number range.
- External assignment - a user or other system assigns the number.

You maintain number ranges for object IDs in Customizing. Number ranges for internal number assignment are indicated by the letters "IN". Number ranges for external number assignment are indicated by the letters "EX".

Because you can easily find objects using search terms, parts of it, and certain characteristics, you do not need to use the object ID. SAP recommends that you use the internal number assignment.



Hint: The name of the object is not part of the object key. This allows the same object number to be maintained in several languages.



Group	Sem. Abbr.	Value Abbr.	Description
NUMGR	COMP		Number assignment for all plan versions

Range	No. Int. Assignment	Ext. No. Assignment
\$\$\$\$	IN	EX
01\$\$	IN	EX
01A	IN	EX
01B	IN	EX

Number Range				
No.	From Number	To Number	Current Number	Ext.
EX	00000001	49999999	EX	<input checked="" type="checkbox"/>
IN	50000000	99999999	50010581	<input type="checkbox"/>

Figure 169: Number Ranges

You can specify whether number assignment is plan version-specific or whether it applies to all plan versions: If you decide to use plan version-specific number assignment, you can define number intervals per plan version and per object type.

Example: Subgroup 10S = number assignment for plan version 10 and object type S.

If you decide to use number assignment for all plan versions, you can define number intervals per object type that are valid for all plan versions in the *Maintain Number Ranges* step.

Example: Subgroup \$\$O = plan-version-independent number assignment for object type O.

Number assignment for all plan versions has the advantage that objects will not be overwritten when objects are copied from one plan version to another.

The subgroup names are set up so that the first two characters specify the plan version and the last two specify the object type. The standard entry \$\$\$\$ in the field *Subgroup* stands for all number ranges not listed explicitly. This entry must not be deleted. You can differentiate between external and internal number assignment in each subgroup.

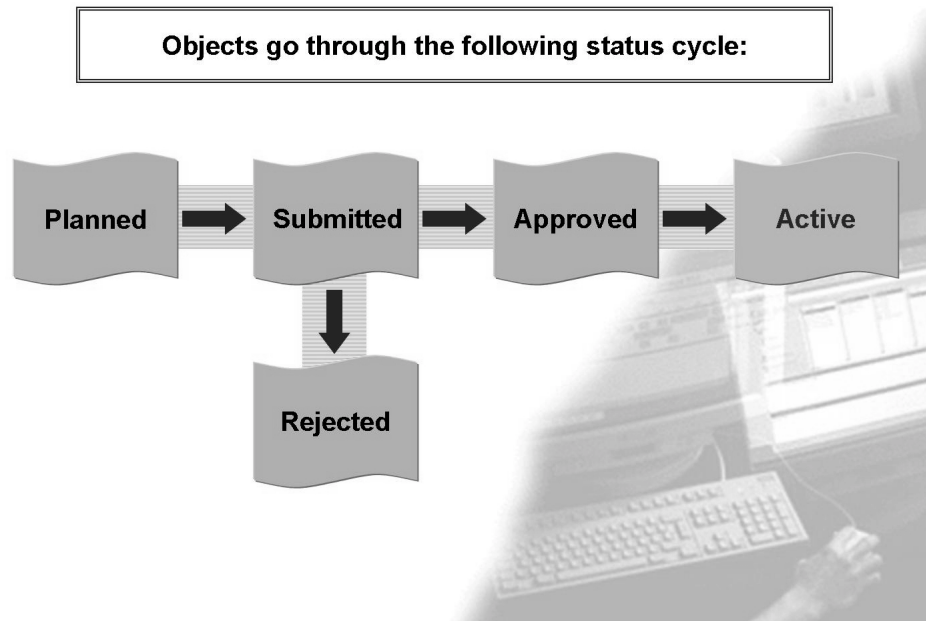


Figure 170: Methodology: Plan Status

Infotype records can go through a planning cycle during which they must be accepted or rejected.

A plan status is assigned to each infotype record:

- *Planned* status indicates that an infotype record that is operable is proposed, but not currently active.
- *Submitted* status indicates that an infotype record has been submitted for review and subsequent approval or rejection by a person or group of persons.
- *Approved* status indicates that an infotype record that was previously submitted for review is accepted or approved.
- *Rejected* status indicates that an infotype record that was previously submitted for review was rejected.
- *Active* status indicates that an infotype record is currently operable.

Objects can be created in either *planned* or *active* status.

You must assign a status to every infotype record you create. You do not, however, have to use all the statuses. Many users use only the *active* status. You cannot use plan statuses with all interfaces. Plan statuses are primarily intended for use with the approval procedure in workflow. The majority of maintenance interfaces can create and maintain only infotype records with status *active*.

The report *RHAKTI00* lets you change the status of several objects at the same time.



Each infotype record uses a start and end date to specify the **validity date** of infotype data.

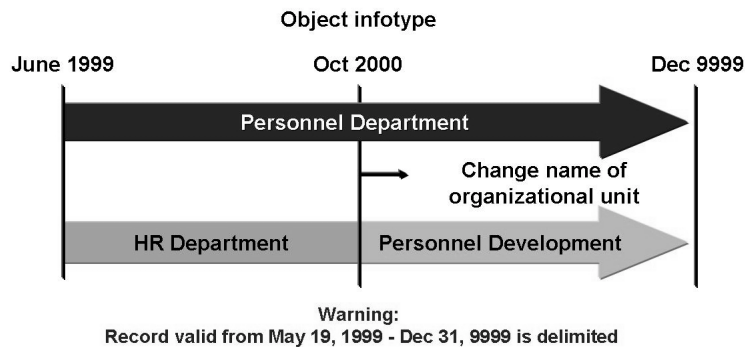


Figure 171: Methodology: Validity Data

Validity period:

- Allows you to define the life span of an infotype record
- Identifies changes to your organization while retaining historical data
- Allows you to evaluate the organizational structure on key dates

You must assign a validity period to every infotype record you create. By doing this, you can depict all changes that take place in your company, which provides you with a dynamic view of your enterprise.

The validity period enables the user to evaluate key data or periods in the past, present or future.

The validity of an object's relationships and attributes can exist only within the life span of the object defined in the *Object* infotype. If an object is delimited, all the object's relationships and characteristics are also automatically delimited. Related objects are not changed. However, a relationship is only valid if both objects themselves are valid.

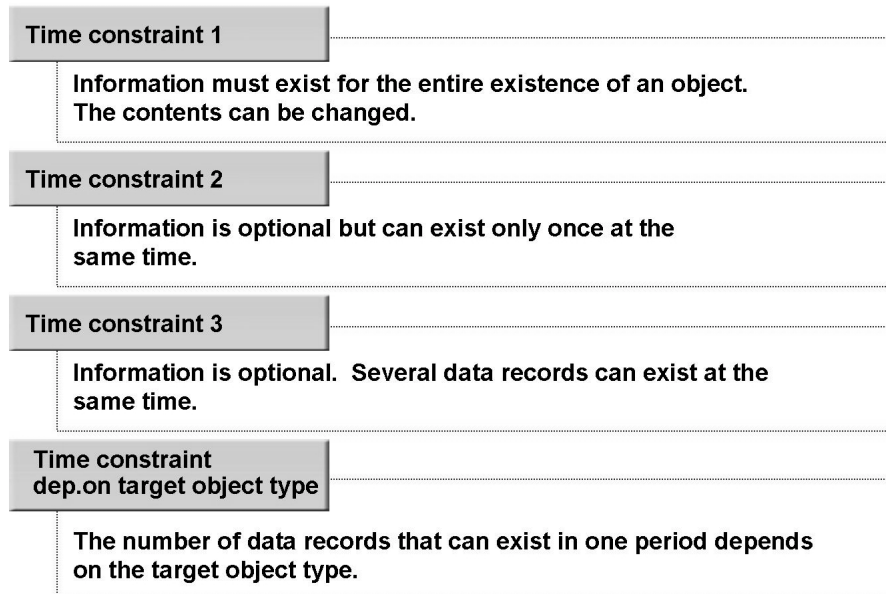


Figure 172: Object Properties: Time Constraint

Time constraints are used internally by the system to guarantee the integrity of data.

You use time constraints to control system reactions according to company-specific requirements. If you want to let positions report to a number of supervisors, you can set up the time constraint to allow several relationships to exist.

Example of time constraint 1:

An object must always have a short name. This information must exist uninterrupted, but can be changed.

Example of time constraint 2:

At any one time, a position may only have one Vacancy infotype record.

Example of time constraint 3:

An organizational unit (for example, Sales) can be related with a number of positions simultaneously.

Example of time constraint depending on target object type:

A position is described by one job only, but by several tasks.



You can view relationships as table entries.

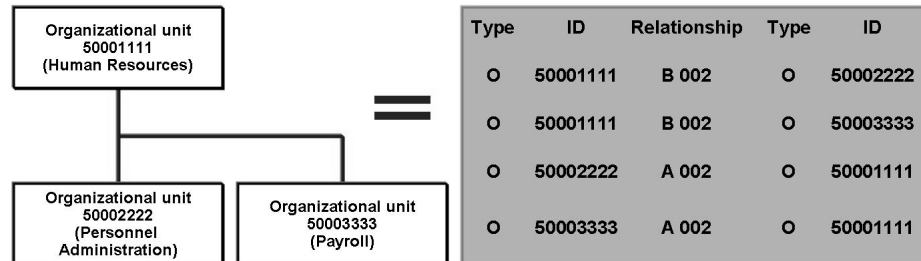


Figure 173: Simple Structures

Relationships between organizational objects exist only as table entries in the database. You can display them as such in the relevant transactions.

In the example in the figure, there are two entries for the higher-level organizational unit: one “B002” for each of the subordinate organizational units.

All relationships between internal objects are stored for each object in the logical database PCH.

External objects such as cost centers or users do not store data in the database.



Some infotypes are inherited via the relationships in Organizational Management.

Organizational units inherit the cost center assignment of their higher-level organization unless an individual assignment is made.

Positions inherit the tasks and qualifications related to the job that describes them. Positions can also have direct relationships to tasks and qualifications in addition to the inherited tasks.

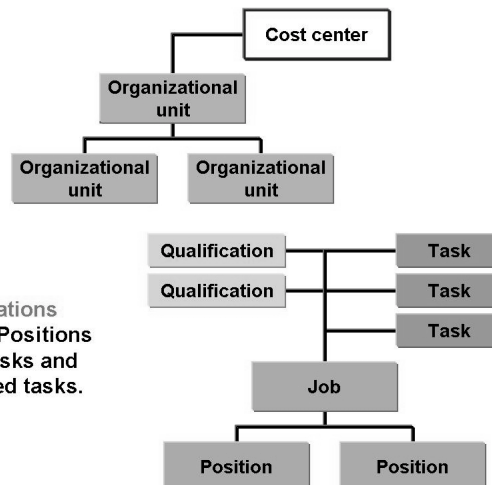


Figure 174: Inheritance

In addition to the inheritance of relationships displayed, other infotypes can also be inherited.

This course discusses the inheritance of the Employee Group/Employee Subgroup (IT1013), Planned Compensation (IT1005), and Working Time (IT1011) infotypes in more detail.



Change documents can be generated for PD infotypes. They enable you to track changes made to the individual infotypes.

In Customizing for Organizational Managements, you can maintain the table T77CDOC_CUST (Activate HR Change Documents).

Activate HR Change Documents for Certain Objects				
Plan Variant	Object Type	Infotype	Subtype	
01	0	1000	*	<input checked="" type="checkbox"/>
01	S	1001	*	<input checked="" type="checkbox"/>

Display Change Documents										
OT	ObjektID	Name	Subtype	Infotype	Start	End Date	OT ID of Rel. O	Description	Name	Datum
<input type="checkbox"/>	50003327	00 HR		1000	21.02.2005	31.12.9999			ERBM	21.02.2005
<input type="checkbox"/>	50003327	00 HR		1000	21.02.2005	31.12.9999			ERBM	21.02.2005
<input checked="" type="checkbox"/>	50007653	00 Administrator	A003	1001	21.02.2005	31.12.9999	<input type="checkbox"/>	50003327 00 HR	ERBM	21.02.2005
<input checked="" type="checkbox"/>	50007653	00 Administrator	A003	1001	21.02.2005	31.12.9999	<input type="checkbox"/>	50003327 00 HR	ERBM	21.02.2005
<input checked="" type="checkbox"/>	50007653	00 Administrator	B007	1001	21.02.2005	31.12.9999	<input checked="" type="checkbox"/>	30018289 00 Administrator	ERBM	21.02.2005
<input checked="" type="checkbox"/>	50007653	00 Administrator	B007	1001	21.02.2005	31.12.9999	<input checked="" type="checkbox"/>	30018289 00 Administrator	ERBM	21.02.2005
<input checked="" type="checkbox"/>	50007653	00 Administrator	B007	1001	21.02.2005	31.12.9999	<input checked="" type="checkbox"/>	30018289 00 Administrator	ERBM	21.02.2005

Report RHCDOC_DISPLAY enables you to evaluate and display change documents.

Figure 175: Change Documents for PD Infotypes

Change documents for Personnel Planning infotypes are based on the SAP Change Document solution (transaction SCDO) and are based on change document objects. Application development can create these change documents and they represent the application objects in HR Change Documents. You can assign database tables to each change document object and changes made to the data can then be logged using the change document object. You must enter the infotypes for which you want to activate the creation of change documents, in table T77CDOC (*Management of Change Doc. Object Class for Infotypes*).

The SAP system includes standard implementations for creating change documents for Personnel Planning infotypes. In the case of standard implementations, infotypes are already connected to HR Change Documents and, therefore, no additional infotype-specific source code is required. In Customizing table T77CDOC_CUST (*Activate HR Change Documents*) you can activate the creation of change documents for specific infotypes, plan versions, object types, and subtypes. In the standard SAP system, HR Change Documents is deactivated for all infotypes. You can only activate infotypes that have been prepared for HR Change Documents, that is, those infotypes for which an entry exists in table T77CDOC. In the case of customer-specific infotypes, you must maintain the entries individually.

Report *RHCDOC_DISPLAY* enables you to display change documents created when changes were made to Personnel Planning infotypes using HR Change Documents. The selection options enable you to select the precise documents you want to display.

If, under Infotype, you select a language-dependent infotype (1000, 1002, and so on), you can also select a language key for the object. If, under Infotype, you select the Relationships infotype (1001), you can also enter the object type or ID to select the related object. The planned status relates to the status of the infotypes and subtypes for which change documents are to be displayed.



Exercise 21: Object Properties and Planning Options

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Describe Organizational Management methodologies.
- Explain validity dates and time constraints.

Business Example

Before you create an organizational plan, you must understand how the Organizational Management objects and relationships will best represent the structure of your organization.

Task 1:

1. What are the main characteristics of an object?

2. Can a person hold a job in Organizational Management? How can you prove this in Customizing?

3. The higher-level organizational unit of a structure has a relationship to cost center 1000. There are two subordinate organizational units, subsidiary 1 has a relationship to cost center 2000 and subsidiary 2 has no cost center assignment.

What cost center would positions under the parent Organizational Unit inherit?

Continued on next page

What cost center would positions under subsidiary Organizational Unit 2 inherit?

What cost center would positions under subsidiary Organizational Unit 1 inherit?

Task 2:

Organizational Management methodologies

1. List possible uses for plan versions.

2. How many plan versions may be integrated with other SAP components?
How can you prove this in Customizing?

3. What are the five planning statuses?

Task 3:

Validity and time constraints

1. In the standard SAP System, what are the time constraints of the following objects and relationships?

Continued on next page

P	B008	S
O	B003	S
O	A002	O
C	A007	S
S	B007	C

2. An organizational unit has been valid since 01/01/03, a position has been valid since 01/06/03. From which date can the position be related to the organizational unit?

3. New positions have been created and added to the organizational structure on 01/06/03. Can persons be hired for these positions on 01/03/03?

Or on 01.09.2003

01.03.2004

Solution 21: Object Properties and Planning Options

Task 1:

1. What are the main characteristics of an object?

Answer: Object infotype (IT1000) with the following data fields:

Plan Version Object Type

Object ID Object Name

Abbreviation Plan Status

Validity Period

This infotype defines the existence of an organizational object.

and

Relationships infotype (IT1001). This infotype gives objects their relevance because of their relationship to other objects. An object without relationships is not evaluated in the structure and has no value in Organizational Management.

2. Can a person hold a job in Organizational Management? How can you prove this in Customizing?

Answer: It is not possible for a person to hold a job. A person may only hold a position.

You can determine this in the

IMG under Personnel Management → Organizational Management → Basic Settings → Data Model Enhancement → Relationship Maintenance → Maintain Relationships.

Select entry 008 that depicts the staffing of positions and double-click on *Allowed Relationships*. You can determine that there is no entry for a relationship between *Job* and *Person*.

3. The higher-level organizational unit of a structure has a relationship to cost center 1000. There are two subordinate organizational units, subsidiary 1 has a relationship to cost center 2000 and subsidiary 2 has no cost center assignment.

What cost center would positions under the parent Organizational Unit inherit?

What cost center would positions under subsidiary Organizational Unit 2 inherit?

Continued on next page

What cost center would positions under subsidiary Organizational Unit 1 inherit?

- a) 1000
- b) 1000
- c) 2000

Task 2:

Organizational Management methodologies

1. List possible uses for plan versions.

Answer: Examples of possible uses for plan versions:

- Integrated plan version
- Create planning scenarios

2. How many plan versions may be integrated with other SAP components?
How can you prove this in Customizing?

Answer: Only the integrated plan version can be integrated with other SAP modules. In the standard delivery, this is plan version 01 "Current Plan"

You can determine this in the

IMG under Personnel Management → Global Settings in Personnel Management → Plan Version Maintenance → Set Active Plan Version.

3. What are the five planning statuses?

Answer:

- Active
- Planned
- Submitted
- Approved
- Rejected

Continued on next page

Task 3:

Validity and time constraints

1. In the standard SAP System, what are the time constraints of the following objects and relationships?

P	B008	S	<u>3</u>
O	B003	S	<u>3</u>
O	A002	O	<u>2</u>
C	A007	S	<u>3</u>
S	B007	C	<u>2</u>

Answer: For time constraints, see:

IMG → Personnel Management → Organizational Management → Basic Settings → Data Model Enhancement → Relationship Maintenance → select Maintain Relationships → select Time Constraints → select Position pushbutton → Enter object type and relationship (under subtype).

For relationship S B007 C, choose the IMG node *Define Time Constraint Depending on Target Object Type* as opposed to *Maintain Relationships*.

2. An organizational unit has been valid since 01/01/03, a position has been valid since 01/06/03. From which date can the position be related to the organizational unit?

Answer: The relationship may exist from 01/06/2003.

3. New positions have been created and added to the organizational structure on 01/06/03. Can persons be hired for these positions on 01/03/03?

No

Or on 01.09.2003 Yes

 01.03.2004 Yes

Answer:



Lesson Summary

You should now be able to:

- Describe the planning options in Organizational Management
- Explain how plan versions, planning status, and validity periods are used
- Outline the concepts of time constraint and inheritance



Unit Summary

You should now be able to:

- Describe object-oriented design
- Explain the most commonly used object types
- Describe the Customizing of object types
- Describe the connection between object relationships and object-oriented design
- List the most important object relationships
- Explain the connection between object relationships, evaluation paths, and the organizational plan
- Describe the planning options in Organizational Management
- Explain how plan versions, planning status, and validity periods are used
- Outline the concepts of time constraint and inheritance



Test Your Knowledge

1. The cost center is an external object type of Organizational Management.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

2. Integration with Recruitment allows vacant job to be created automatically in Recruitment and are thereby available to be reoccupied.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

3. The manager of an organizational unit is always a person in Organizational Management.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

4. A new relationship is usually stored for two objects.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

5. Evaluation paths are hard programmed in the SAP system and can only be changed via a development request.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

6. Customers can create new object types, relationships, and infotypes in Organizational Management.
Determine whether this statement is true or false.
 - ☐ True
 - ☐ False

7. There is only ever one active plan version.
Determine whether this statement is true or false.
- ☐ True
 - ☐ False
8. You should always set up number ranges for object types and plan versions so that you can use the numbers to find the objects quickly.
Determine whether this statement is true or false.
- ☐ True
 - ☐ False
9. The plan status *obsolete* is used for objects that no longer exist in the validity period.
Determine whether this statement is true or false.
- ☐ True
 - ☐ False



Answers

1. The cost center is an external object type of Organizational Management.

Answer: False

The cost center is created and maintained in Controlling and in terms of its content does not, therefore, belong directly to Organizational Management. From a technical perspective, this is realized using the interface program under *external object types* in transaction OOOT.

2. Integration with Recruitment allows vacant job to be created automatically in Recruitment and are thereby available to be reoccupied.

Answer: False

This only applies to positions.

3. The manager of an organizational unit is always a person in Organizational Management.

Answer: False

The property "manager" is maintained as a relationship from the position to the organizational unit. This information is irrespective of the holder of a position, person, user, business partner or central person (represented in evaluation path SBESX).

4. A new relationship is usually stored for two objects.

Answer: True

When a relationship is created, it is stored as an infotype record of infotype 1001 in both directions on both objects.

5. Evaluation paths are hard programmed in the SAP system and can only be changed via a development request.

Answer: False

Evaluation paths are customized and can therefore be set up in a flexible manner. However, you should not change existing evaluation paths. Instead, you should create a duplicate and change the copy. The eight-character customer namespace for evaluation paths starts with a Z.

6. Customers can create new object types, relationships, and infotypes in Organizational Management.

Answer: True

Customers use the Customizing for Organizational Management to do this.

7. There is only ever one active plan version.

Answer: True

This is the integration plan version. It is set up in the PLOGI PLOGI entry in table T77S0 and should not be changed after it has been set up.

8. You should always set up number ranges for object types and plan versions so that you can use the numbers to find the objects quickly.

Answer: False

A meaningful number ID is not required in Organizational Management and is difficult to achieve. You should not set up number ranges without a valid reason because you thereby reduce the flexibility.

9. The plan status *obsolete* is used for objects that no longer exist in the validity period.

Answer: False

Plan status and validity are two concepts that exist independently of one another. No obsolete plan status exists, only rejected. Objects that have been delimited before the evaluation period are no longer read by or displayed on the interfaces.

Unit 17



The Organization and Staffing Interface



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

The Organization and Staffing interface is preset as the maintenance interface for the completion of daily tasks. It enables uncomplicated maintenance of the most varied objects and information using a single-screen transaction.

This unit focuses on using the Organization and Staffing interface.



Unit Objectives

After completing this unit, you will be able to:

- Describe the functions of the Organization and Staffing interface.
- Create, display, and maintain basic object types and relationships in an organizational plan.

Unit Contents

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Exercise 22: User Interface: Organization and Staffing	437

Lesson: Application Interface: Organization and Staffing



370

Lesson Duration: 90 Minutes

Lesson Overview

This lesson deals with the structure and use of the “Organization and Staffing” interface. It focuses on how to edit the organizational plan, switch between existing evaluation paths, use drag&drop (between the object manager and the structure/detail area, and within the structure area), and how to undo/reset changes. The Customizing options of the interface are also introduced. However, the Customizing itself is not part of the unit.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the functions of the Organization and Staffing interface.
- Create, display, and maintain basic object types and relationships in an organizational plan.



For more information, see the instructor guide in SAPNet.

Business Example

In productive use, your company's organizational plan will change. The Organization and Staffing user interface enables you to make the necessary changes to your organizational plan in the system.

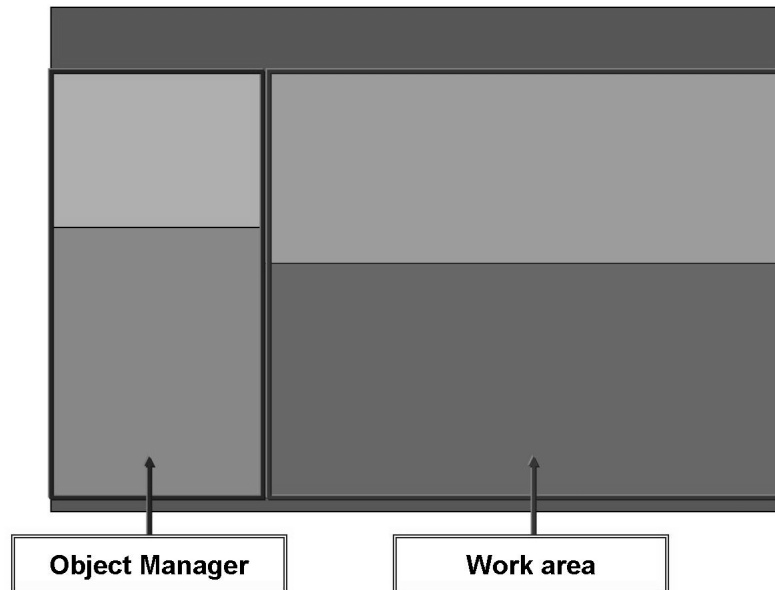


Figure 176: The Organization and Staffing Interface: Hierarchy Framework

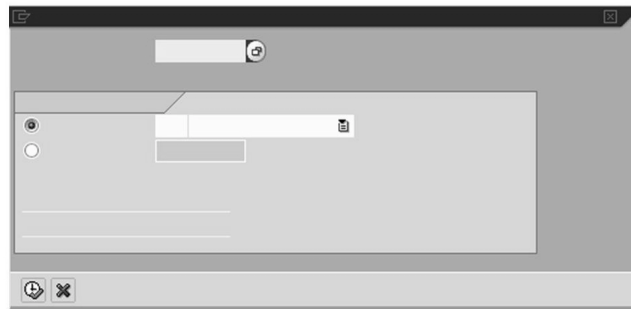
The Organization and Staffing user interface is divided into two main areas, each of which is further subdivided.

The Object Manager comprises a search area and a selection area. The Object Manager is available in numerous HR user interfaces. You can tailor the Object Manager to suit your requirements in Customizing.

The work area is composed of an overview area and a detail area. The work area is specifically for the *Organization and Staffing* interface and can also be adapted to suit customer-specific requirements.



You must specify the **date** and **preview period** when you start the transaction.
When you log on to the system, the system date is proposed as the start date.
You can change this date for the individual sessions.
The preview period to be entered remains user-specific.



The user parameter **OM_DATE**, in format **mm.dd.yyyy**, allows you to enter a specific date as the default value for the start date.



The setting **Period Query for Organizational Changes** enables the user to define a different change period for every change.

Figure 177: Date and Preview Period

Every time you log on, the current date is used as the start of the preview period. Data valid for the period you have selected is displayed.

The first time you log on, the preview period is defined as three months. All changes made in this period are displayed. You can change the preview period. The next time you log on, the preview period which you selected is set.

For *organizational changes*, the data for the *Date and Preview Period* als the start date for changes (new objects, new relationships, and so on) as standard. By activating the *Period Query for Organizational Changes* setting in the menu bar, you can create a date query for the user. This means that the system uses the default values for the date and preview period but the user can still make a different setting, if required.

Icons are used to indicate objects whose validity begins or ends during the specified preview period.

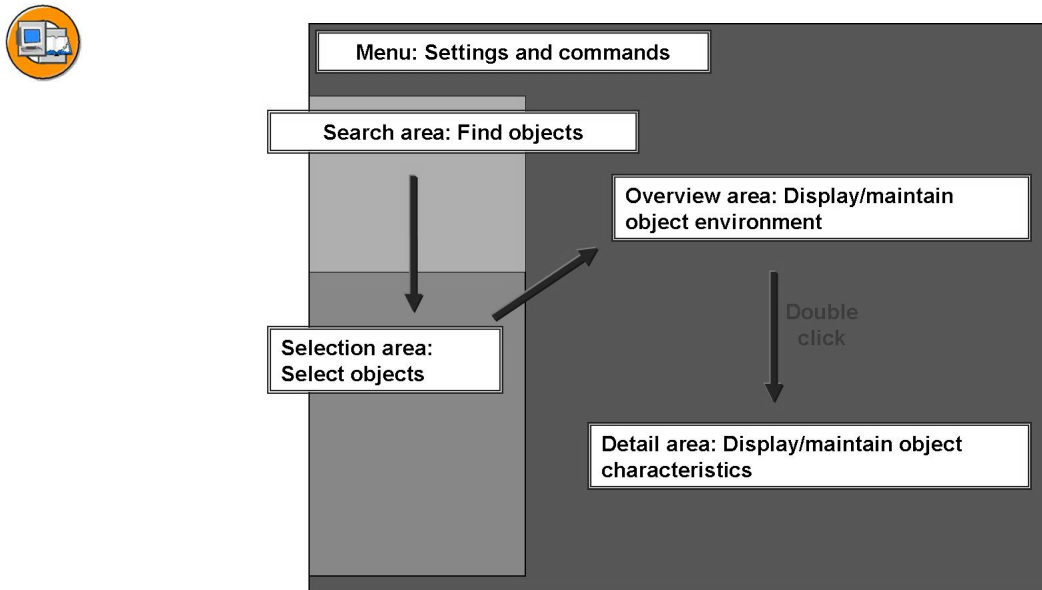


Figure 178: Navigation Overview

In the search area, you use the search function to locate objects such as organizational units, persons, jobs, positions, tasks, and users.

In the selection area, you select, from the results obtained from a search, an object to be used in the overview and/or detail areas.

In the overview area, you can process the selected objects in your organizational environment. Depending on the object type, different evaluation paths are available here.

In the detail area, you can maintain the detailed object characteristics.

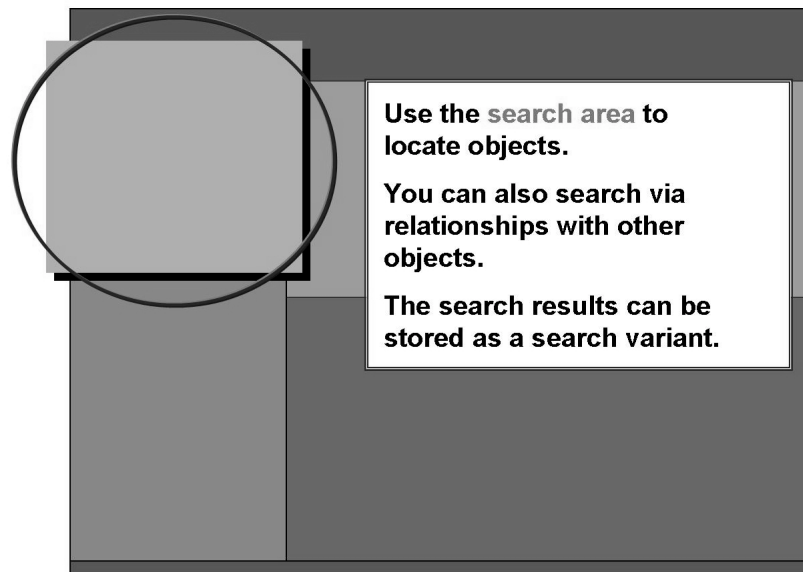


Figure 179: Search Area

Use the search tools in the search area to locate the objects you want to display or edit.



In the standard system, three search tools are available in the search area (🔍 symbol).

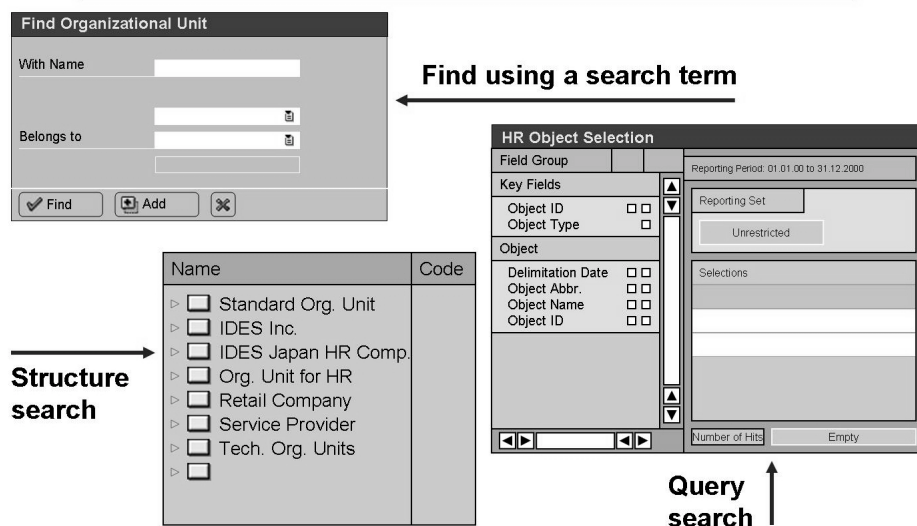


Figure 180: Search Tools in the Search Area

Objects you are searching for must already exist.
Some search functions are specific to object type.

If you search with a search term, enter the name or part of the name of the object you are looking for (you can use an asterisk (*) as a wild card). You can restrict the number of hits, if required, by entering whether an object is directly or indirectly assigned to another object.

The free search uses the InfoSet Query.

If you are searching according to structure, the entire structure is displayed in the selection area, from which you can select the object you wish to work with.



The results of the search are displayed here for selection. Double-click on a object to have it displayed in the overview and detail areas.

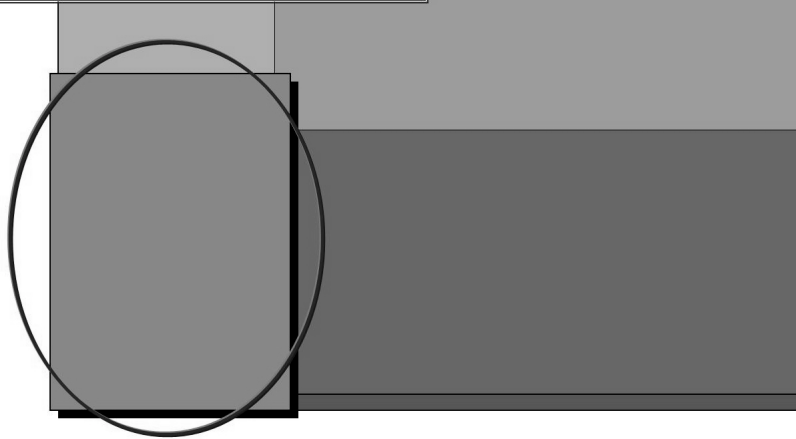


Figure 181: Selection Area

The objects found are listed in the selection area.

To select one of these objects you can use one of the following methods:

- Double-click on the object to have it displayed with a standard evaluation path in the overview area, or
- Right-click on a specific evaluation path to access it directly in the overview area
- Select one or more objects to assign these to another object in the overview area by dragging and dropping.

The selected object is displayed in the detail area for further processing.

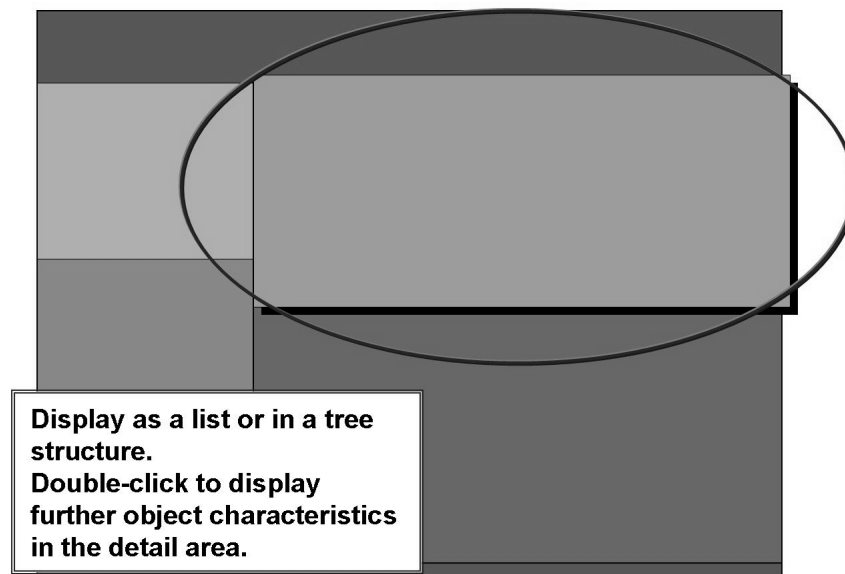


Figure 182: Overview Area

The selected object is located in the **overview area** in the context of an evaluation path (you can choose from numerous evaluation paths).

You can display, for example:

- An organizational unit in its organizational structure.
- The person in the staff assignment of an organizational unit
- The task assignment, which shows the organizational units, positions, jobs, and persons related to tasks.

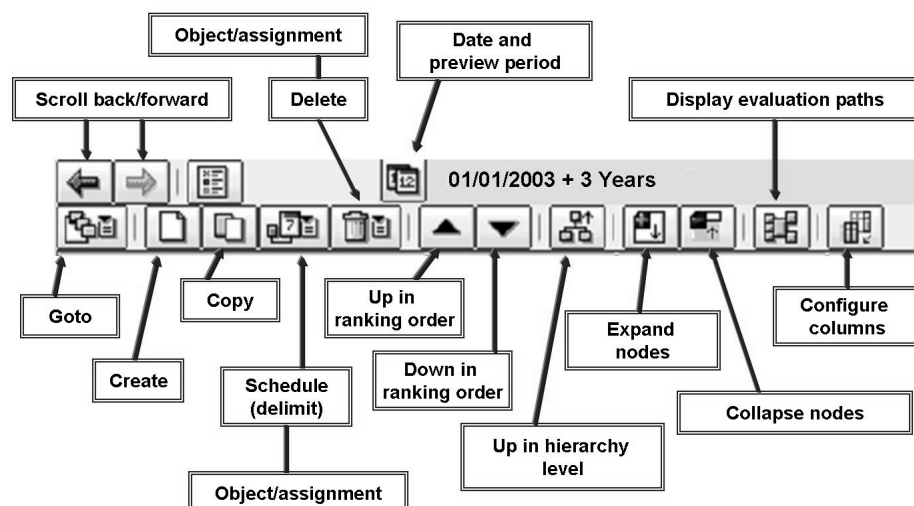


Figure 183: Overview Icons

This slide may be used for reference purposes when working with the *Organization and Staffing* user interface.

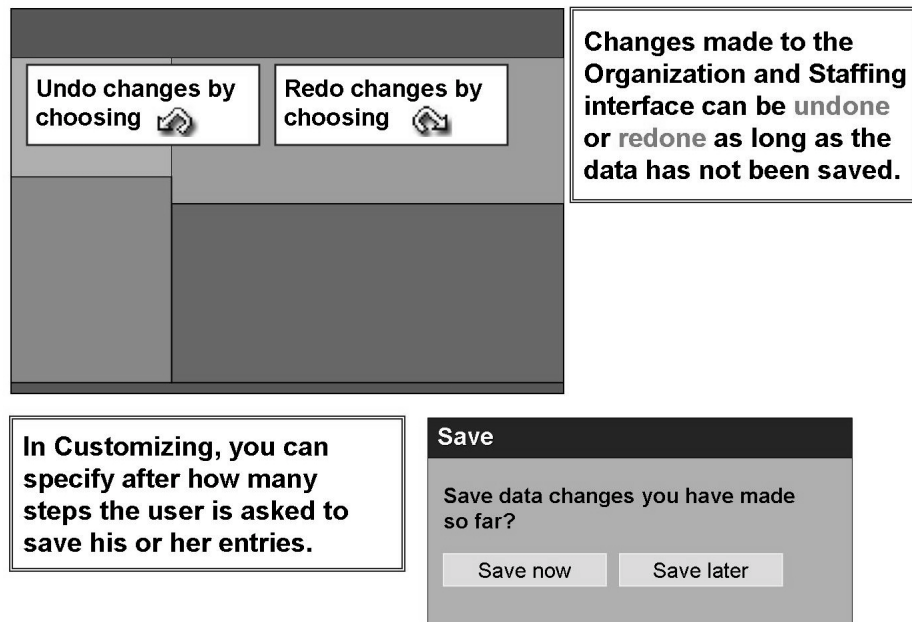


Figure 184: Undo and Redo /Confirmation Prompt

The Undo/Redo function allows you to undo data that has been written to the buffer as long as it has not yet been saved.

Once you have carried out a specified number of changes to data, a dialog box appears asking whether you want to save these changes. In Customizing, you define the number of steps that are carried out before the confirmation prompt appears.



To create new objects, choose .
Choose one of the object types that can be created in
the current display.

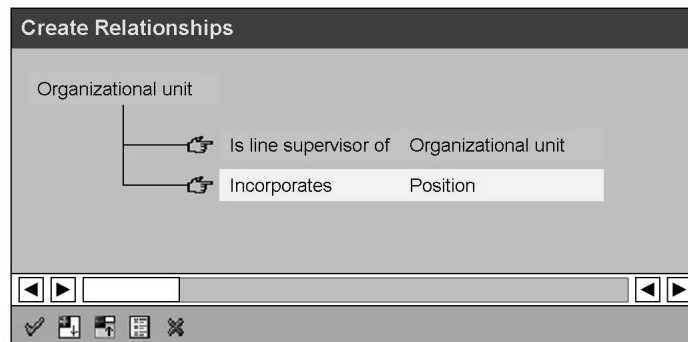


Figure 185: Create Objects

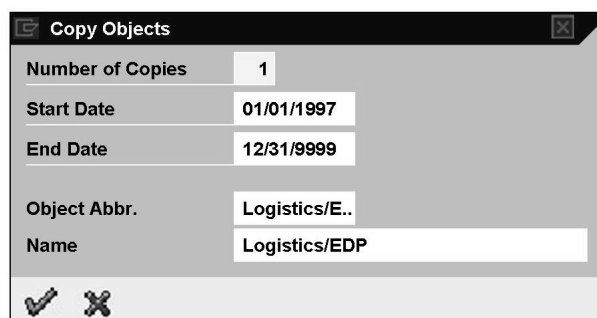
To create a root organizational unit for a new organizational plan, you must be in *Create* mode.

Which objects you can create depends on the selected object and the evaluation path used in the overview area.

If necessary, check which assignments can be made in your particular case, by clicking the *Display Evaluation Path* icon.



Use to create a new object by copying an existing one.



Enter the number of copies and give them names.
You can exclude selected infotypes from the copying
process (Customizing).

Figure 186: Copy Objects

You can create a new object by copying an object that already exists. When you do this, the properties of the object are copied. By making an entry in table T77ITEX, “*Hierarchy Framework: Copy Object: Exclude Infotype*” you can exclude infotypes from the copying process. As a customer, you can exclude further infotypes from this process in table T77ITEX_C.




You can **assign** objects by dragging and dropping or by using the  icon.



Figure 187: Assigning Objects

Objects can be

- Newly assigned if they are not yet assigned.
- Moved, that is, you end the object's current assignment in a structure and create a new assignment within the same structure.
- Repositioned within a hierarchy level in a structure.

Which objects you can assign/move/reposition depends on the current evaluation path in the overview area.

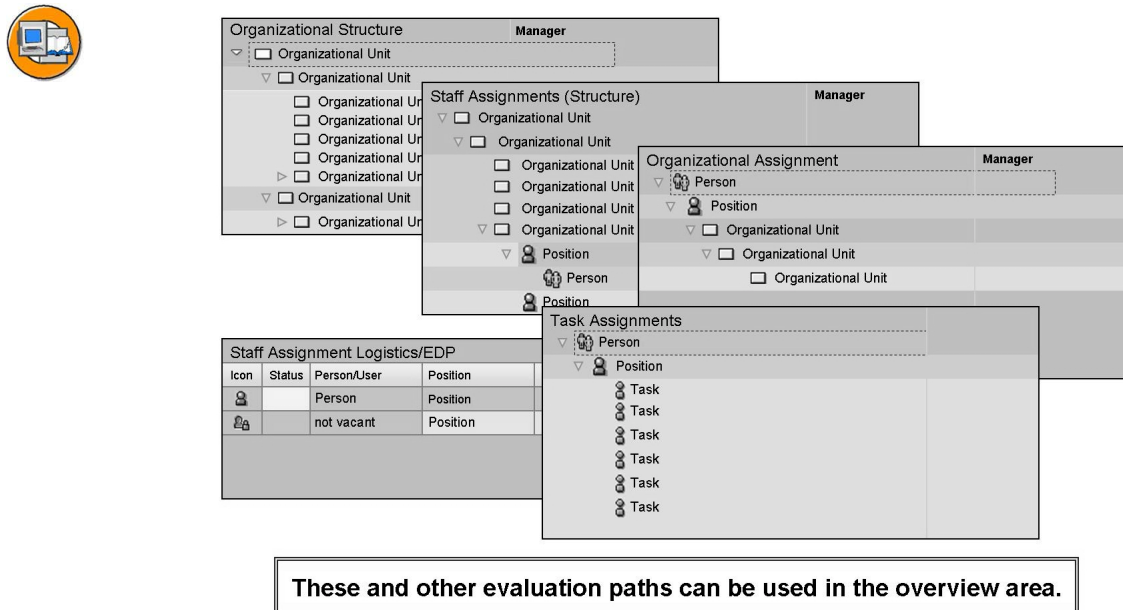


Figure 188: Switching Between Evaluation Paths

Depending on the object type the environment can be displayed as one of the following:

- An organizational structure
- A reporting structure
- Staff assignments in the form of a list or a tree structure
- Task assignments
- Organizational assignments
- Job assignments
- Chief assignments
- Account assignments

If required, you can switch between these representations of the object's environment by clicking the relevant icon.

You can customize these evaluation paths to tailor them to customer-specific requirements.

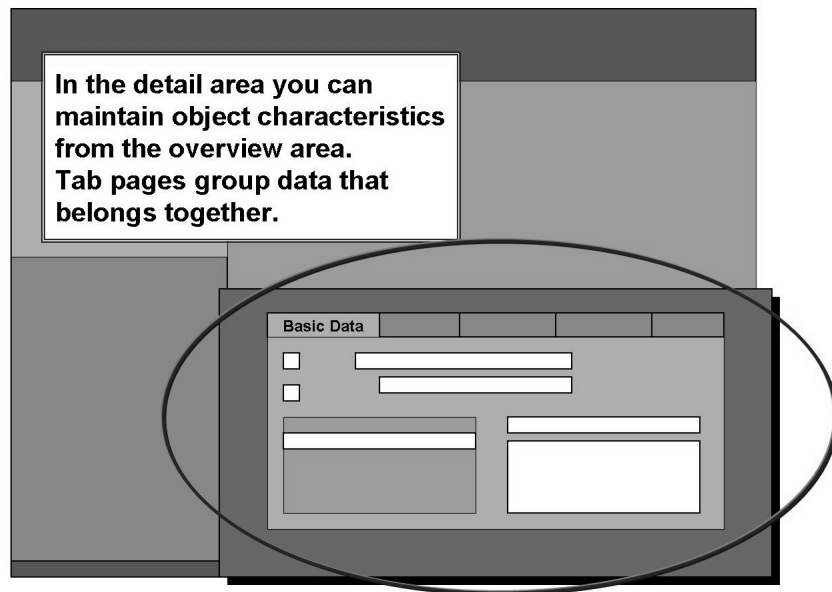


Figure 189: Detail Area

Properties of the selected object are displayed on tab pages in the detail area. You can edit the characteristics of this object or add new ones, as required.

Customizing the Hierarchy Framework (I)

You can make the following settings relating to the object manager



- Define your own hierarchy framework scenario
- Define your own search nodes (including object types)
- Adjust the search area
- Redefine column headings
- Display your own column group in the selection area
- Define and add new columns for an object type (query)
- Configure columns

A few possible changes are displayed in the Object Manager.

Customizing the Hierarchy Framework (I)

You can make the following Customizing settings in the overview and detail areas:



- Adjust tabs in detail area
- Add new infotype
- Add new object type
- Define and add new columns for an object type (query)
- Configure columns



Exercise 22: User Interface: Organization and Staffing

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Use the Organization and Staffing Interface to create an organizational plan.

Business Example

In productive use, your company's organizational plan will change.

The Organization and Staffing user interface enables you to make the necessary changes to your organizational plan in the system.

Task:

Create an organizational plan based on the information given below and the diagram on the following page.

Guidelines

Use your group number (##) as a prefix for all your object names and abbreviations (01-organizational unit, 01-position, for example).

Ensure that you are in the active plan version. Use 01/01 of the current year as the start date for your editing period. Set **Period Query for Organizational Changes**.

Relate your highest-level organizational unit with the “*Human Resources Consolidated Group*”. Use cost center 4711 or 4712 under company code CABB. You can use existing jobs and/or tasks.

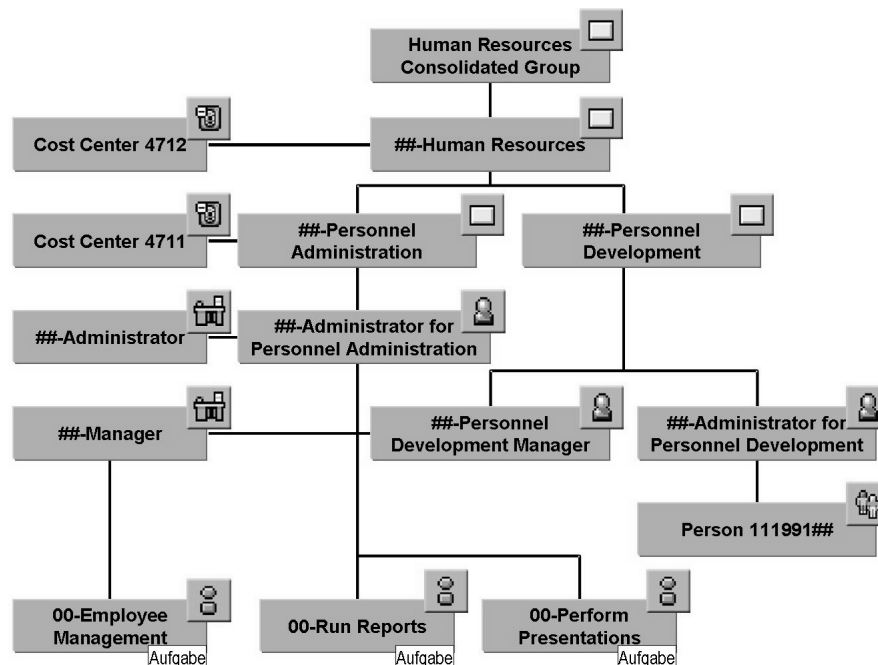


Figure 190: Diagram

1. Create your organizational plan and relate the cost centers. Use F4 help for the search, and remain in company code CABB.
2. Create positions defined by jobs and relate them to your organizational units.
3. Relate the job ## Manager and the flagged positions with the relevant tasks.

Continued on next page

4. Relate the position ## *Administrator for Personnel Development* with a holder. This person already exists – personnel number 111991##.



Hint: Relate tasks and holders by dragging and dropping. Use *undo* if you need to make a correction. Follow the guidelines, enter appropriate validity periods for all objects.

Solution 22: User Interface: Organization and Staffing

Task:

Create an organizational plan based on the information given below and the diagram on the following page.

Guidelines

Use your group number (##) as a prefix for all your object names and abbreviations (01-organizational unit, 01-position, for example).

Ensure that you are in the active plan version. Use 01/01 of the current year as the start date for your editing period. Set **Period Query for Organizational Changes**.

Relate your highest-level organizational unit with the “*Human Resources Consolidated Group*”. Use cost center 4711 or 4712 under company code CABB. You can use existing jobs and/or tasks.

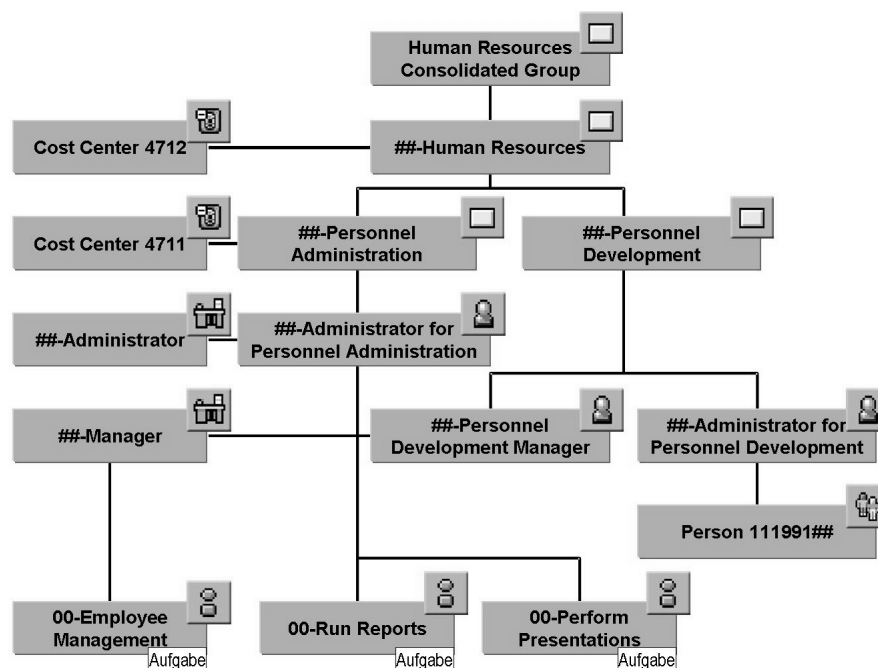



Figure 191: Diagram

1. Create your organizational plan and relate the cost centers. Use F4 help for the search, and remain in company code CABB.
 - a) SAP Menu bar → Settings → Query Period for Organizational Changes/Create Multiple Objects → Set Indicator → Confirm with Enter

Continued on next page

- b) Create your organizational units and assign cost centers

*SAP Easy Access → Human Resources → Organizational Management
→ Organizational Plan → Organization and Staffing → Change*

On the Organization and Staffing Change screen, be sure to enter the correct validity date and preview period. In this case, enter 01/01/ for the current year and three months for the preview period. Choose icon .



Hint: When performing this transaction, you may be directed to the Simple Maintenance interface if required. The first screen is *Change Organizational Plan*. To display the *Organization and Staffing* interface, you must switch to the new view. To do this, choose *SAP Menu → Settings → Maintenance Interface...*

Use the search area to find the organizational unit *Human Resources Consolidated Group*. Use the search function.

In the search area, double click on *Human Resources Consolidated Group*. The staff assignments (structure) for the organizational are displayed in the overview area.

Choose the *Create* icon. You are asked what kind of object you wish to create (position or organizational unit), select *Organizational Unit*. Details of the new organizational unit appear in the detail area. On the *Basic Data* tab page, enter a new name for your organizational unit in the detail area. You must enter a name and an abbreviation. Name your new organizational unit *##-Human Resources*. You can enter an abbreviation of your choice. The relationship between the organizational units is created automatically.

Once you have created your higher-level organizational unit (*##-Human Resources*), go back into the search area and search for it (*##** as a search term). Select it from the selection area and work with it in the overview area. This will ensure that other course participants are able to work with the root organizational unit (*Human Resources Consolidated Group*)

On the *Account Assignment* tab page, relate your new organizational unit to a cost center in the detail area. Select the *Master Cost Center* field, and search for a cost center using the search help F4. Ensure that the cost centers you use in your search belong to company code CABB.

To create both subordinate organizational units, select your higher-level organizational unit (*##-Human Resources*), and choose *Create* (both are created as subordinates for the higher-level organizational unit).

Continued on next page

Rename your new organizational units, *##-Human Resources*, and assign cost centers accordingly. Since you are working with your *##-Human Resources* organizational unit as a higher-level organizational unit, it can remain in your overview area (it will not be needed by other course participants, so you do not have to exit it, as you did with *Human Resources Consolidated Group*).

Save your organizational structure.

2. Create positions defined by jobs and relate them to your organizational units.
 - a) Create positions defined by jobs and relate them to your organizational units.

Ensure you are in the Staff Assignments (Structure) view. In the overview area, choose the organizational unit *##-Personnel Administration*.

Choose *Create* (via the relevant icon). When asked which type of object you wish to create, select *Position*. The relationship to the organizational unit will be created automatically. Once the new position has been created, rename it in the detail area (00-Administrator for *Personnel Administration*).

The naming convention for the jobs that already exist in the system is *##**. To search for an existing job, enter your group number and *** in the *Job* field. A list is generated from which you can choose a job. If you want to create a new job, choose *Create Jobs* from the *Edit* menu. Enter the correct validity period (01/01/2000 – 12/31/9999).

After you have created the position *##-Administrator for Personnel Administration*, do the same for *##-Administrator for Personnel Development*, and *##-Personnel Development Manager*. Save your entries.

Continued on next page

3. Relate the job ## Manager and the flagged positions with the relevant tasks.

- a) Assign tasks.

Select the *Task Assignment* view in the overview area. Choose the position with which you want to relate tasks (first ## Administrator for *Personnel Administration*).

If you want to create your own tasks, choose the *Create* icon and then *Task*. If you want to use tasks that already exist, use the search area to fill the selection area with tasks. Existing tasks are prefixed with 00*. As soon as the selection area contains tasks, you can assign them to your position by dragging and dropping.

You can also assign tasks in the *Staff Assignments (Structure)* view. To do this, choose the relevant position and then choose the *Tasks* tab page in the detail section. As before, use the search area to search for tasks. As soon as they are displayed in the selection area, you can drag them to the task list in the detail area. In this view, however, you cannot create any new tasks.

4. Relate the position ## *Administrator for Personnel Development* with a holder. This person already exists – personnel number 111991##.



Hint: Relate tasks and holders by dragging and dropping. Use *undo* if you need to make a correction. Follow the guidelines, enter appropriate validity periods for all objects.

- a) Assign holders.

Choose the position to which you want to assign a holder (in this case, ## *Administrator for Personnel Development*).

Use the search area to find 111991##. As soon as this person is displayed in the selection area, you can transfer it to the position in the overview area using drag&drop. Confirm that you want to delimit the vacancy.

Save your entries.



Lesson Summary

You should now be able to:

- Describe the functions of the Organization and Staffing interface.
- Create, display, and maintain basic object types and relationships in an organizational plan.



Unit Summary

You should now be able to:

- Describe the functions of the Organization and Staffing interface.
- Create, display, and maintain basic object types and relationships in an organizational plan.



Test Your Knowledge

1. For organizational changes, the data for the date and preview period is used as the _____ for changes (new objects, new relationships, and so on) as standard. By activating the

_____ setting in the menu bar, you can create a _____ for the user. This means that the system uses the default values for the _____ but the _____ can still make a different setting, if required.

Fill in the blanks to complete the sentence.

2. The objects that you can create in the overview area depend on the _____ and the _____ you use in the overview area. If necessary, use the _____ icon to check which assignments can be made in a particular case.

Fill in the blanks to complete the sentence.



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Answers

1. For organizational changes, the data for the date and preview period is used as the start date for changes (new objects, new relationships, and so on) as standard. By activating the Period Query for Organizational Changes setting in the menu bar, you can create a date query for the user. This means that the system uses the default values for the Date and Preview Period but the user can still make a different setting, if required.

Answer: start date, Period Query for Organizational Changes, date query, Date and Preview Period, user

2. The objects that you can create in the overview area depend on the selected object and the evaluation path you use in the overview area. If necessary, use the Display Evaluation Path icon to check which assignments can be made in a particular case.

Answer: selected object, evaluation path, Display Evaluation Path

Unit 18



393

Expert Mode: Infotype Maintenance



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

This unit discusses the most common Organizational Management infotypes and their business applications. It also provides information on working with interfaces.



Unit Objectives

After completing this unit, you will be able to:

- Maintain relevant infotypes in expert mode
- Explain how the main Organizational Management infotypes are used

Unit Contents

Lesson: Expert Mode: Infotype Maintenance	450
Exercise 23: Expert Mode: Infotype Maintenance	471

Lesson: Expert Mode: Infotype Maintenance



Lesson Duration: 2 Hours

Lesson Overview

This lesson introduces you to the use of the main Organizational Management infotypes.

They are first depicted on the infotype maintenance interfaces. This interface is ideal for maintaining details. Individual objects are called that then allow you to edit individual infotypes.

The infotypes are then displayed and discussed on the more modern interfaces.



Lesson Objectives

After completing this lesson, you will be able to:

- Maintain relevant infotypes in expert mode
- Explain how the main Organizational Management infotypes are used



For more information, see the instructor guide in SAPNet.

Business Example

Now that your organization is completely depicted, you want to store additional information for individual objects. For instance, all objects are to have a description, certain positions are to be flagged as vacant, and some departments flagged as staff departments.



Infotype Edit Goto Extras View System Help

Maintain Organizational Unit

Plan Version: Current Plan

Organizational Unit: 50000609

Organizational Unit: Purchas. USA

Active Planned Submitted Approved Rejected

Infotype Name	Period
Object	<input checked="" type="radio"/> Period
Relationships	From <input type="text"/> to <input type="text"/>
Description	<input type="radio"/> Today <input type="radio"/> Current Week
Department/Staff	<input type="radio"/> All <input type="radio"/> Current Month
Acct. Assignment Features	<input type="radio"/> From Curr. date <input type="radio"/> Last Week
Work Schedule	<input type="radio"/> To Curr. date <input type="radio"/> Last Month
Cost Planning	<input type="radio"/> Current Year
Standard Profiles	

Infotypes are accessed directly from object maintenance. You can maintain infotype records with different statuses.

Figure 192: Infotype Maintenance

Plan Version

It is important to ensure that you are working in the correct plan version at all times.

Organizational Unit

The object ID is displayed. Search help enables the user to find the object he or she wants to maintain.

Abbreviation

The abbreviation is displayed so that the user can ensure that the right object is being edited.

Validity Period

Start and end dates specify the period during which the object exists in the current plan version.

Infotype

You must select the infotype you want to maintain.

Status

You must select the status of the infotype you want to maintain using the tab pages.

Display Available Infotypes

At a glance, you can determine which infotypes exist for the selected object. This is indicated, according to the period, by a green checkmark.

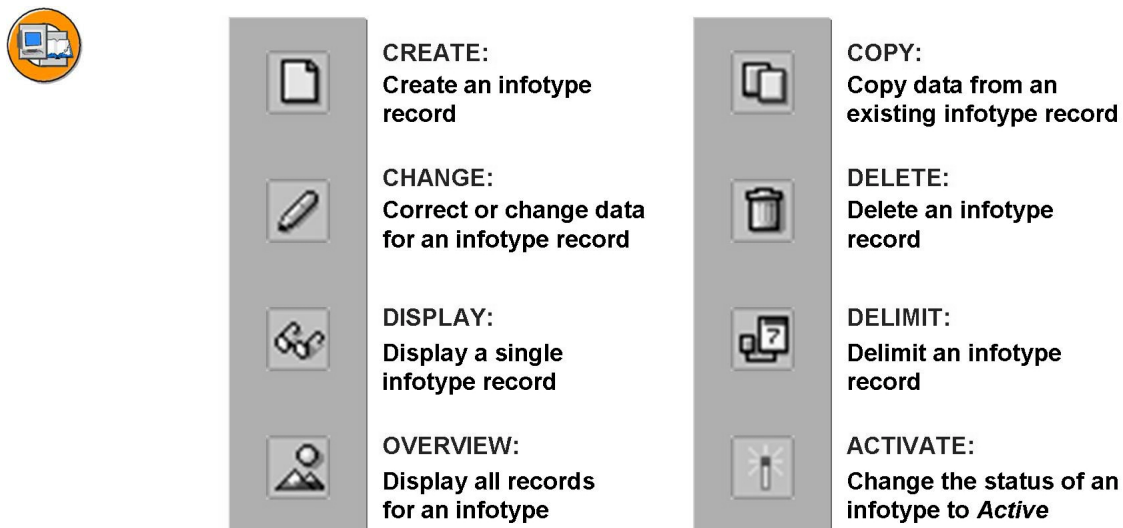


Figure 193: Functions

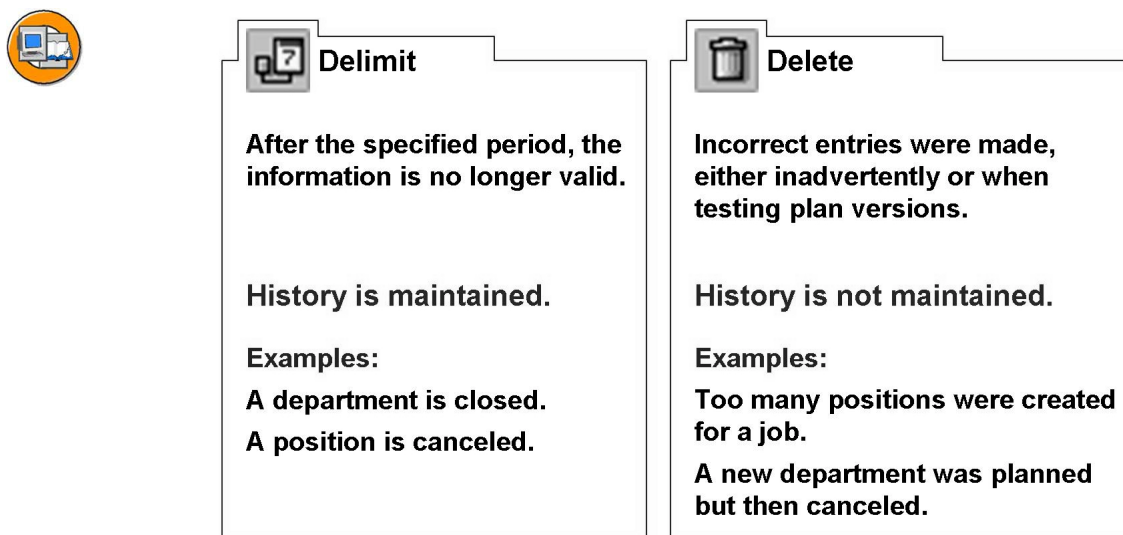


Figure 194: Delimit and Delete

When you delete or delimit an object, all of its infotypes are deleted or delimited as well.



The screenshot shows the SAP 'Display Object' screen. The menu bar includes 'Infotype', 'Edit', 'Goto', 'Extras', 'View', 'System', and 'Help'. Below the menu is a toolbar with various icons. The main area is titled 'Display Object' and contains the following fields:

- Organizational Unit: Sales (selected), Sales Department
- Plan Status: Active
- Validity: 01/01/2000 to 12/31/9999, with a 'Change Info' button.
- Object: (selected)
- Object Abbr.: Sales
- Name: Sales Department
- Language: English

At the bottom right, it shows 'Record 1 of 1'.

Figure 195: Object

The Object infotype (1000) is a special infotype. Infotypes usually describe an object's characteristics. However, the Object infotype has the following functions:

- It allows you to create new objects, for example, organizational units, jobs, and positions.
- It determines the lifecycle of all other infotypes created for the object.

Defines the existence of an organizational object.

To create new objects you must maintain the following data:

- Validity period of the object
- Status
- Object abbreviation (12 characters)
- Name (40 characters)

Once you have created an object using this infotype, you can maintain object properties using the other infotypes available.



The **Relationships** infotype enables you to define relationships between different objects.

You create relationship records manually when you work in Infotype Maintenance.

However, the system creates certain relationships automatically for the **Organization and Staffing**, **Simple Maintenance**, and **General Structures** interfaces.

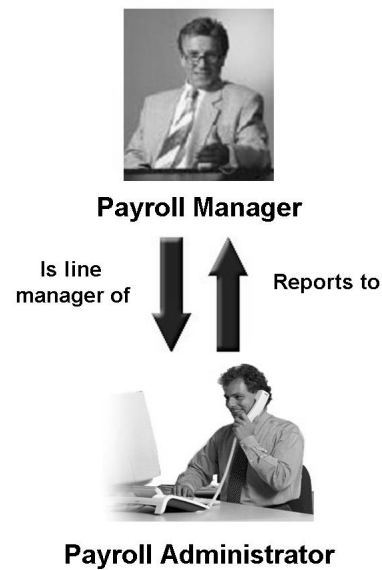


Figure 196: Relationships

There are many different relationship types that you can create between object types. Each individual relationship represents a subtype of the Relationships infotype (IT1001).

Not all relationships apply to every object.

Certain relationship types allow you to store additional information for the object, such as a weighting percentage or a priority.

When creating a relationship, the inverse relationship is usually created by the system.



The **Description** infotype enables you to enter long-text descriptions for objects.

The infotype subtype specifies various types of descriptions.

Org. Unit	Sales	Sales Department
Plan Status	Active	
Validity	01/01/2000 to 12/31/9999	Change Info
Description		
Subtype	0001	General Description
Language	EN	English
Description		
The Sales Department is responsible for initial contact with customers.		

Figure 197: Description

The *Description* infotype (IT1002) is used to provide a more detailed description of an object. For example, you may want to explain an organizational unit's purpose, or responsibilities.

Descriptions are for purely descriptive purposes.

The *Description* infotype may have many subtypes.

Report RHTRANS0 enables you to obtain a list of language-dependent infotypes in Organizational Management, and translate them into different languages.

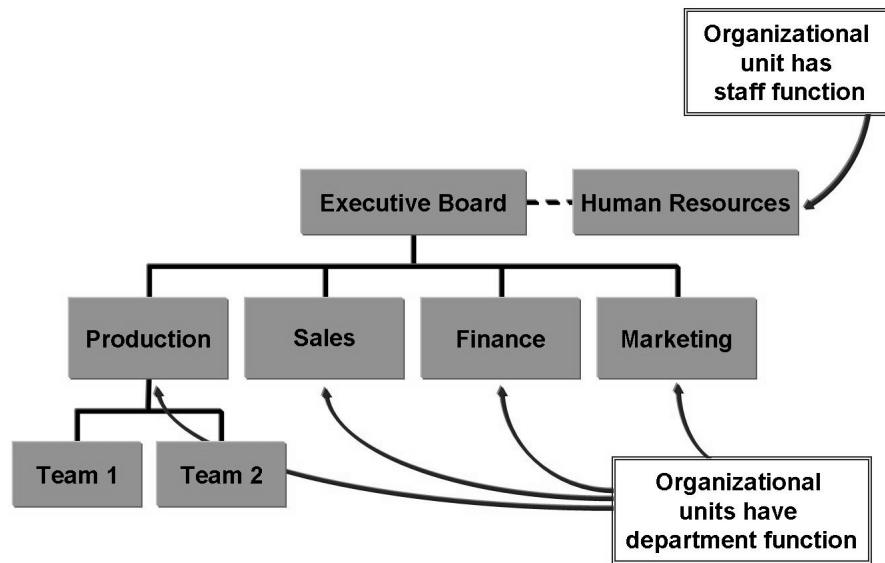


Figure 198: Department / Staff

The Department / Staff infotype (IT1003) is used for organizational units and positions only. It fulfills two functions:

The *Staff* indicator (possible for positions and organizational units):

- The Staff indicator shows that an organizational unit or a position is not part of the reporting structure of an enterprise but that it reports directly to an organizational unit. For example, the Human Resources Department is not part of the company's reporting structure. It reports directly to the Executive Board as a staff department. Many companies use the staff indicator to flag organizational units that have an advisory or consulting function.

The Staff indicator is represented graphically.

The Department indicator (only relevant for organizational units):

- It may be necessary to flag an organizational unit as a department when integration between Organizational Management and Personnel Administration is active. If you want to define organizational units in more detail (for example, at team level) in Organizational Management and then is necessary in Personnel Administration, you have to use the Department indicator.

The Department/Staff infotype allows you to specify the organizational unit that is entered for the employee in the Organizational Assignment (IT0001) infotype. After the infotype is activated in Customizing, the system reads the organizational structure, starting from the relevant employee, until it finds an organizational unit flagged with the Department indicator.

If you would like to use the Department indicator at your company, you must set the switch PPABT PPABT in table T77S0 to 1.



This infotype allows you to define the planned compensation for a given position, job, or work center. You can specify salaries or wages.

The information entered here can be used as default values for basic pay in Personnel Administration.

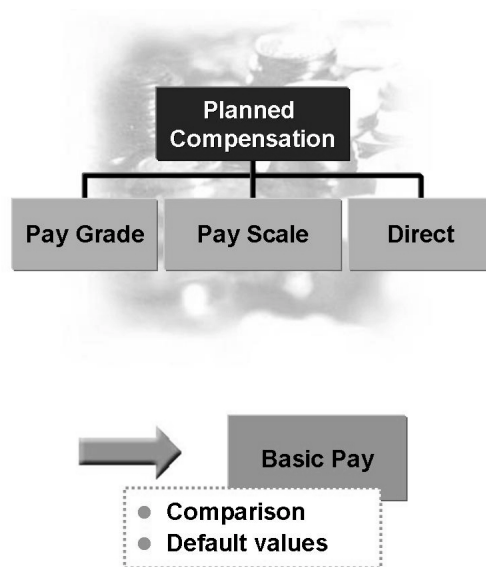


Figure 199: Planned Compensation

The Planned Compensation infotype (IT1005) allows you to assign the planned remuneration to jobs, positions, and work centers.

This infotype is primarily used in Compensation Management for storing person-dependent compensation data that can then be compared with real compensation data. This enables a company to create a possible compensation strategy. With SAP R/3 Enterprise, you can also use the infotype for personnel cost planning.

If integration with Master Data is active, you can use the *Planned Compensation* infotype to offer default values for the *Basic Pay* infotype in Master Data. These default values are based on the salary or pay-scale data saved for the employee's position or the descriptive job.

The Planned Compensation infotype has three different attributes (types of planned compensation):

- **Salary:** You can store information about the planned positioning of this position and job in your company's salary structure (table T710).
- **Pay scale:** You store information about the planned positioning of this position and job for the pay scale structure (table T510) for your company.
- **Direct:** Used by companies that do not have a salary structure or a pay scale structure to be able to use the report *Compare Actual Base Salary to Planned Compensation* (report `RHCMPCOMPARE_ACTUAL_PLANNED`).



The Vacancy infotype enables you to store position vacancies. A position is vacant if it is to be occupied.

The Vacancy infotype is used in integration with Personnel Cost Planning, Personnel Development, and Recruitment.



Figure 200: Vacancy

The Vacancy infotype (IT1007) can be created for a position that is occupied or unoccupied. You can flag an occupied position as vacant if you know that the position holder will be leaving the position at some point in the future (as a result of a promotion or transfer, for example).

Positions can not be flagged simultaneously as vacant and obsolete. If a vacant position is flagged as obsolete, the vacancy is delimited at the start of the validity of the obsolete flag (minus one day).

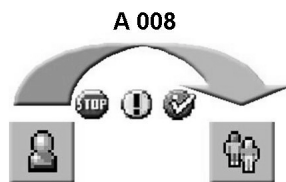
Other components can flag a position as vacant. If you use Personnel Cost Planning, for example, the system can take vacancies into account when it calculates cost projections. Furthermore, vacancies are registered in Career and Succession Planning where they can be used when you search for suitable positions for an employee. If integration with Personnel Administration (PA) is active, Recruitment also has access to information about vacancies.

It is not mandatory to maintain the Vacancy infotype. If your company does not distinguish between occupied and unoccupied positions, that is, you consider all unoccupied positions to be vacant, you can make the necessary settings in Customizing. If you want to activate integration with Recruitment, you need to maintain vacancies using this infotype.



The **Obsolete** infotype is used to flag positions that are no longer needed, but are still occupied.

Position	Admin. Assistant	Admin. Assistant
Plan Status	Active	
Validity	01/01/2000	to 12/31/9999
<input type="checkbox"/> Obsolete		



In Customizing, you can specify how the system is to respond if an obsolete position is to be occupied.

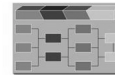


Figure 201: Obsolete

Using the Obsolete infotype, you can flag positions as obsolete that, due to a reorganization, for example, are no longer necessary, but remain occupied. As soon as the position holder leaves the position (for example, due to a transfer), a dialog box automatically appears in which you can delimit the position.

Positions flagged as obsolete can not be set to vacant.

In Customizing for the Holder relationship (A/B008), specify whether the *Obsolete* infotype is to be used and how the system should react (error message, warning message, or information message) if the user attempts to assign a person to an obsolete position.



This infotype enables you to create relevant default values for **Personnel Administration**.

When the values are entered they are checked with **Cost Accounting**.

Org. Unit	Sales	Sales Department
Plan Status	Active	
Validity	01/01/1999	to 12/31/9999
<input type="button" value="Change Info"/>		
Account Assignment Features		
Company Code	CABB	Training
Business Area	Administration / Other	
Personnel Area	CABB	Frankfurt
Personnel Subarea	0003	Head Office
CO Area	1000	CO Universal

Customizing

PPOM	INHS	X	Positions inherit account assignment features
------	------	---	---

Figure 202: Account Assignment Features

The Account Assignment Features infotype (IT1008) can be created for organizational units and positions.

This infotype stores default values relevant to:

- the Personnel Administration component if integration is active
- the cost center assignment of organizational units and positions.

If integration with Personnel Administration is active, the Account Assignment Features infotype provides default values for the classification of employees in the personnel structure at the company. These values may be personnel areas, personnel subareas or business areas. If the data you enter differs from the default values (deviating personnel area, for example), the system displays a warning message.

Subordinate organizational units and positions inherit the Default Values infotype.



Hint: A personnel area and cost center must belong to the same company code before an employee may be assigned both.



This infotype enables you to assign a position to an employee group or subgroup.

Position	Admin. Assistant	Admin. Assistant
Plan Status	Active	
Validity	01/01/2000 to 12/31/9999	Change Info
Employee Group	1	
EE Subgroup	X7	

Figure 203: Employee Group / Subgroup

Employee Group/Subgroup infotype:

When a position is occupied by an employee, the system suggests an employee group and employee subgroup, if integration with Personnel Administration is active. If you enter a different employee group or subgroup, a warning message is displayed. Users can overwrite these values at any time.

Assigning a position to an employee group or subgroup also allows the system to determine the Work Schedule Group in Organizational Management and thereby determine the relevant working time (IT1011) for the position.

Employee groups and subgroups factor heavily in mySAP HR Personnel Administration and Payroll.



The **Work Schedule** infotype enables you to define a work schedule (average number of hours to be worked) for organizational units, work centers, or positions.

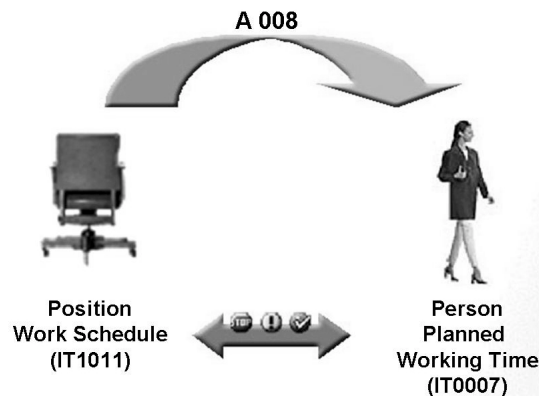


Figure 204: Work schedule

In Customizing, you can create a standard working time (hours per day, per week, per month, per year) that is valid company-wide. If you also need to assign different work schedules for certain sections of the company, you can do so using the Work Schedule infotype (IT1011).

The working times stored in Organizational Management are needed for comparison (warning) with the values stored for the person in the Planned Working Time infotype (IT0007). You can activate and customize this comparison in Customizing for the relationship attributes of the Holder Relationship (A/B008).

Report RHSBES10 compares the planned working times (IT1011) with the working times that are actually stored for the person (IT0007).

Similarly, the values from Organizational Management are used if Quota Planning (IT1019) is performed using Full-Time Equivalents, that is, using time units.



Hint: We recommend that you store a company-wide work schedule for your company's root organizational unit in the Work Schedule infotype. This is necessary to retain a history that can be evaluated if changes occur. If the company-wide work schedule is defined in Customizing only, the history of changes in the Organizational Plan will not be stored.

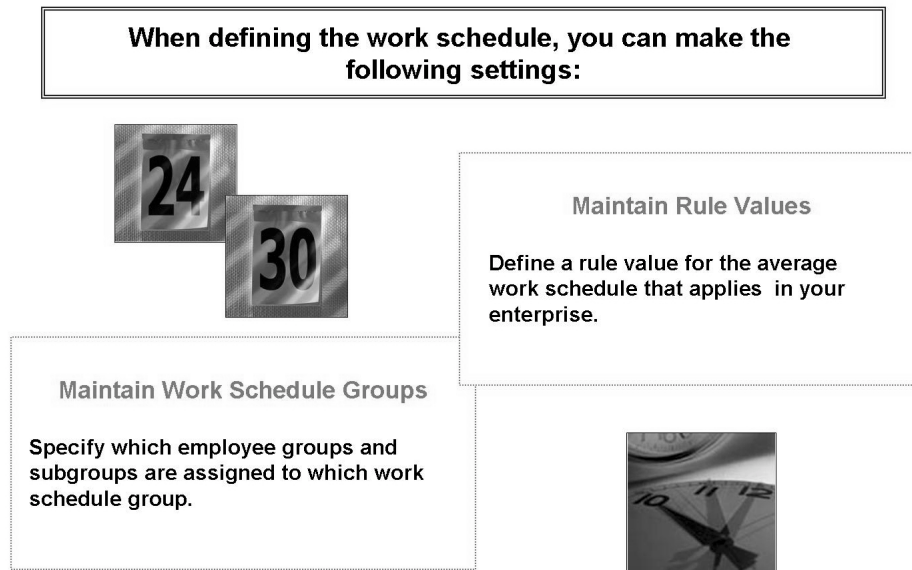


Figure 205: Customizing Working Time

If you do not only want to use rule values to depict working time groups, you can also maintain *Working Time Groups* in Customizing. In this way, you can specify a specific working time for individual positions or organizational units and their subordinate organizational objects.

Depending on the employee group or subgroup (IT1013) maintained here or for the descriptive job, this grouping enables you to specify which positions receive a particular working time. You can maintain this working time for the relevant organizational unit in the Work Schedule infotype (IT1011) in relation to the working time groups. This allows you to store different working times for all the appropriate positions belonging to this organizational unit.

We generally recommend that you maintain the Work Schedule infotype for the organizational objects in your organization (the root organizational unit at least), as this is the only way that a history will be kept of changes to working times.

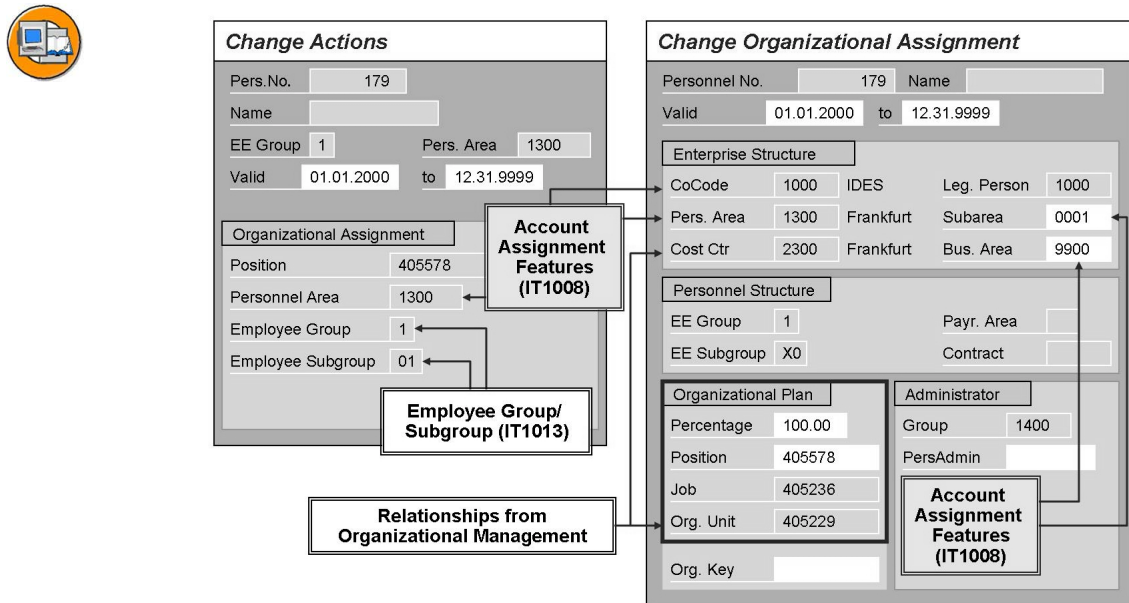


Figure 206: Default Values for Personnel Administration

When you hire an employee in HR Master Data, you can enter the position in the Actions infotype. Based on the position you enter, the values stored in Organizational Management appear in the fields in the Actions infotype (shown in the screenshot). The default value for the personnel area is based on the organizational unit concerned or the Account Assignment Features infotype, if it has been maintained for the position.

The default values for employee group and subgroup are based on the Employee Group/Subgroup infotype.

Further default values can appear in the Organizational Assignment infotype:

The default values for business area and personnel subarea come from the Account Assignment Features infotype for the position (or organizational unit) concerned. All values in the organizational plan area, except the organizational key, are determined directly via the assigned position and transferred to the infotype. The same also applies to the assigned cost center. The cost center originates either from the relationship of the organizational unit or position, or from the inheritance logic in Organizational Management for cost centers.



Infotype Edit Goto Extras View System Help

Change Cost Distribution

Position: Market. Manag.
 Plan Status: Active
 Validity: 01.01.2000 to 12.31.9999 [Change Info](#)

Cost Distribution

Master Cost Center: 1000

COAr	Cost Ctr	Order	WBS Element	Name	Pct.
1000	3200			Marketing	30

Entry 1 of 1 Entry 1 / 1

Cost distribution for
 • Org.units
 • Positions

Additional
 cost centers
 and master
 cost center

30% Cost center
 Marketing

70% = Master cost
 center
 Sales

Figure 207: Cost Distribution

The Cost Distribution (IT 1018) infotype allows organizational units and positions to be assigned to both a master cost center and additional cost centers, orders, or WBS elements. You must enter a cost unit and a percentage for cost distribution. The percentage assignment to the master cost center is based on the difference (up to 100%).

An employee inherits the cost distribution assigned to his or her position or organizational unit.

Personnel Cost Planning uses the Master Data Cost Distribution infotype (IT0027) for cost planning for basic pay and payroll results. If this has not been maintained, it uses the Cost Distribution infotype (IT1018) in Organizational Management.

Similarly to Personnel Cost Planning, Payroll also uses the Cost Distribution infotype (IT10027) for HR master data. If this infotype has not been maintained, Payroll uses the Cost Distribution infotype (IT 1018) in Organizational Management.



Figure 208: Quota Planning

The Quota Planning infotype (IT1019) allows you to plan the headcount. In Customizing, you can define whether planning uses whole headcounts or proportional headcounts (see next slide).

You can base your planning on a previous plan, or on the current number of positions in an organizational unit.

Quota planning derives the number of jobs from the existing positions. This allows positions and headcount to be compared for the entire enterprise. The new headcount, as a planned number of jobs, is compared with the current plan.

Depending on the Customizing setting, managers or the administrators responsible are able to plan a new headcount using whole or partial jobs.

A plan can be frozen in Customizing at a specific point in time. If those responsible for the plan are to make changes, this is possible in a new planning cycle that is based on the previous planning cycle using a subtype of IT1019.

After the plan has been finalized, you can use the relevant reports to create new positions, and delimit unoccupied positions as of a specified date.

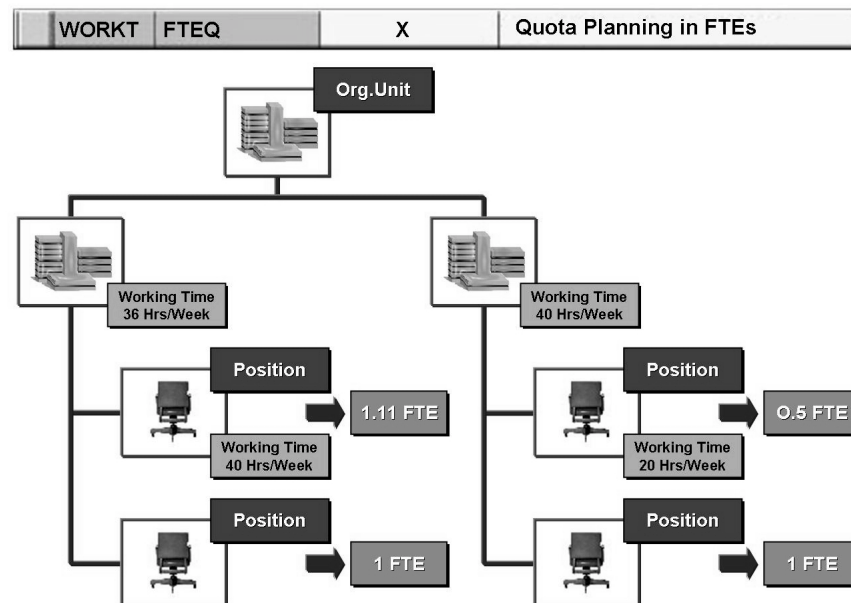


Figure 209: Quota Planning in Full-Time Equivalents

When setting up quota planning, you should differentiate between the following steps:

- Define the planning types (e.g. first planning, second planning, and so on), in other words, the subtypes (0001, 0002, and so on) of this infotype.
- Define the time interval (week, month, and so on) and the total planning period.
- Specify whether the existing number of positions can be exceeded.
- Specify in table T77S0 the basis (whole positions or FTEs) for your headcount plan.

If you want to perform quota planning in full-time equivalents (FTE)s, you must maintain the Work Schedule infotype (IT1011) for your organizational units and positions. The system uses the values for the organizational unit as the default value for the position and compares these with the values stored here for IT1011. The system thereby determines the classification of the position as a percentage. This also enables positions to be valued proportionally.

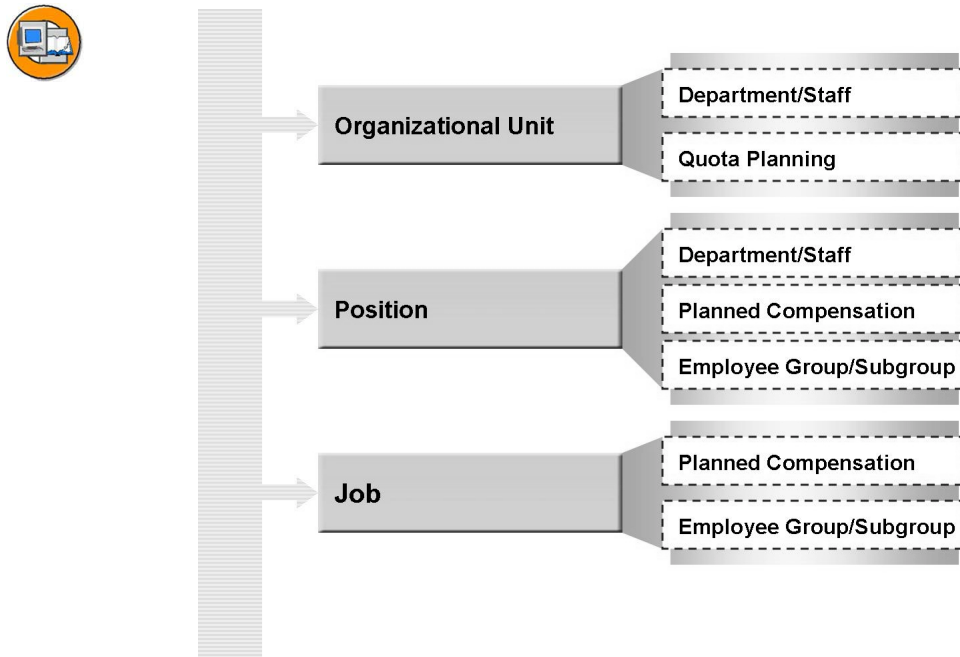


Figure 210: Infotypes per Object Type

Some infotypes are relevant only for certain object types (the Planned Compensation infotype, for example, is not assigned to an organizational unit).

Table T777I displays the valid infotypes per object (and their time constraints).

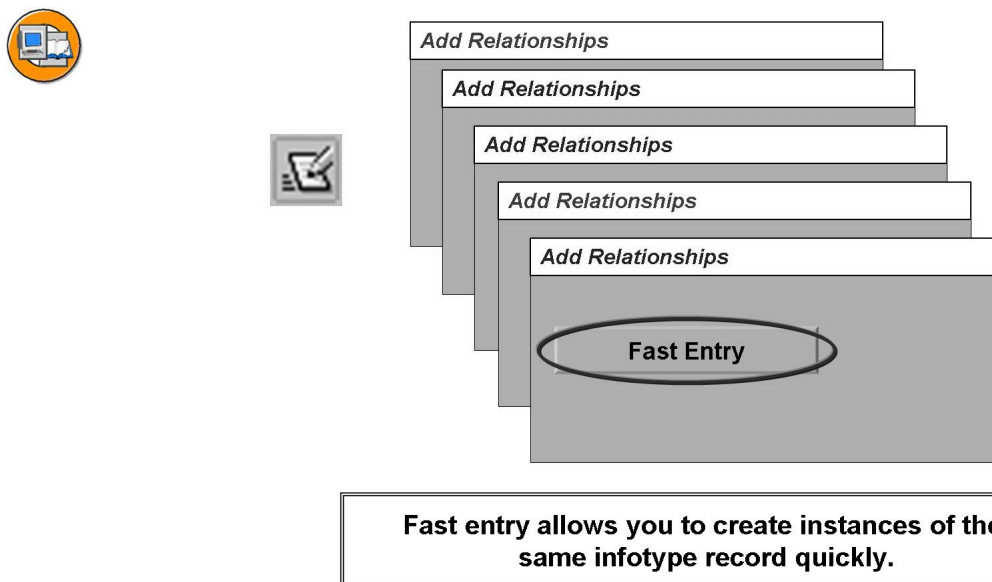


Figure 211: Fast Entry

Fast entry enables you to create many infotype records for different objects quickly. You can use this function if you want to create the same infotype record, such as a Relationship infotype record, for many different objects.

Fast entry allows you to stay inside the respective infotype window, rather than enter and exit again. This function saves you time and is available for most infotypes.

Tools



- Object Tools:
 - Actions
 - Copy
 - Copy with list
 - Copy structures
 - Delimit
 - New end date
 - Change status
- Infotype Tools:
 - Delimit
 - New end date
 - New start date
 - Translate

Comprehensive documentation is available about the tools for the object and infotypes. Your instructor will introduce the tools to you.

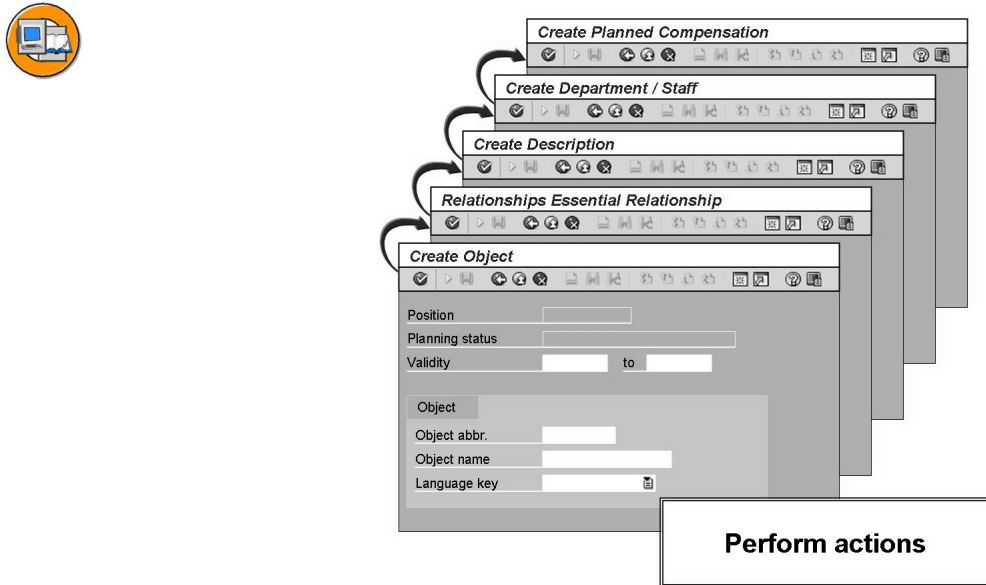


Figure 212: Actions

You can create objects using *actions*. An *action* is a series of infotypes that are presented for editing in a specific order or sequence. You determine the infotypes and the sequence in Customizing.

Example:

The standard action, creating a position, consists of the following infotypes:

- Object
- Relationship to organizational unit
- Relationship to describing job
- Description
- Department / Staff



Action	Info	Action Name
A		Create work center
B		Create training program
C		Create job
S		Create position

Action	Action Name	FNo.	Plan V.	OT	Infot	Subtype	Plan Status	Variation
S	Create position	1	**		1000			
S	Create position	20	**	S	1001	A002		S
S	Create position	30	**	S	1002	0001		
S	Create position	40	**	S	1003			
S	Create position	50	**	S	1005			
S	Create position	60	**	S	1010			
S	Create position	80	**	S	1001	B007		C
S	Create position	100	**	S	1001	A002		S

Figure 213: Customizing Actions

When carrying out an action, the user is automatically offered the relevant infotypes one after another. The infotypes and the sequence in which they should be offered when carrying out an action can be determined in this step.

Each substep of an action involves the processing of an individual infotype. You assign the following to each substep of an action:

- A plan version
- An object type
- An infotype or a subtype
- A status

Default values for relationships with the target object type

Function code, e.g. create and change



Hint: When defining an action, make sure that you assign infotypes in a logical order. The Object infotype should always be edited first and have 01 as its line number.

Each action can be defined only for one object type.



Exercise 23: Expert Mode: Infotype Maintenance

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Use Expert Mode: Infotype Maintenance to edit your organizational plan.

Business Example

When you have implemented Organizational Management and it is in productive use, your company's organizational plan will change. The user interface *Expert Mode: Infotype Maintenance* is used to create and maintain the characteristics of individual objects.

Guidelines

Use your group number (##) as a prefix for all your object names and abbreviations (01-organizational unit, 01-position, for example).

Ensure that you are in the active plan version.

Use 01/01/ of the current calendar year as the start date of your editing period.

Task 1:

Creating objects in Infotype Maintenance

1. Create a work center in Infotype Maintenance (##-Office).
2. Relate your work center to your ## Personnel Development Manager position (relationship A/B003).

Continued on next page

Task 2:

Maintaining an organizational plan.

Additional Exercise Data

Maintaining an organizational plan.

Create a *Planned Compensation* infotype record for your job, ## Manager.

To maintain *Planned Compensation* in a pay grade structure, use the following data:

Country grouping:	Other countries
Pay grade type:	01
Pay grade area:	01
Pay grade group:	EXEC28
Pay grade level:	01
To 05 time unit:	Annual

or

To maintain *Planned Compensation* in a pay scale structure, use the following data:

Country grouping:	Other countries
Pay scale type:	01
Pay scale area:	01
Pay scale rule grouping:	3
Pay scale group:	E01 to E04
Pay scale level:	Blank
Time unit:	Monthly

1. Create a *Planned Compensation* infotype record for your job, ## Manager.
2. Create an *Employee Group / Subgroup* infotype record for the ## *Personnel Development Manager* position using the following values:

Employee group:	Active
Employee subgroup:	X7

3. Maintain the *Work Schedule* infotype for your ## Human Resources organizational unit. Enter 40 hours per week for all working time groups. Flag it as the general work schedule.

Continued on next page

4. Review the changes you have made in the *Organization and Staffing* interface. Which changes can you not find here?

Solution 23: Expert Mode: Infotype Maintenance

Task 1:

Creating objects in Infotype Maintenance

1. Create a work center in Infotype Maintenance (##-Office).
 - a) Access Infotype Maintenance
*SAP Easy Access → Human Resources → Organizational Management
 → Expert Mode → Work Center*

 Select the Object infotype and choose *Create*. Enter a name and an abbreviation for your work center, ##-Office. Make sure the validity period is correct (01/01/ of the current year to 12/31/9999). Save your entries.
2. Relate your work center to your ## Personnel Development Manager position (relationship A/B003).
 - a) Select the *Relationships* infotype and choose *Create*. After checking the validity period, enter the relationship type, in this case, A 003. Use F4 help to select Position as the type of related object. Use F4 help on the “ID of Related Object” field to find the ## *Personnel Development Manager* position. Save your entries.

Task 2:

Maintaining an organizational plan.

Additional Exercise Data

Maintaining an organizational plan.

Create a Planned Compensation infotype record for your job, ## Manager.

To maintain Planned Compensation in a pay grade structure, use the following data:

Country grouping:	Other countries
Pay grade type:	01
Pay grade area:	01
Pay grade group:	EXEC28
Pay grade level:	01
To 05 time unit:	Annual

Continued on next page

or

To maintain Planned Compensation in a pay scale structure, use the following data:

Country grouping:	Other countries
Pay scale type:	01
Pay scale area:	01
Pay scale rule grouping:	3
Pay scale group:	E01 to E04
Pay scale level:	Blank
Time unit:	Monthly

1. Create a *Planned Compensation* infotype record for your job, ## *Manager*.

- a) *SAP Easy Access* → *Human Resources* → *Organizational Management* → *Expert Mode* → *Job*

Ensuring you are in the correct plan version and that the correct validity period is displayed, select the job you wish to maintain. Once your job and its infotypes are displayed (the infotypes which have been maintained for the position are indicated by a green checkmark), select the *Planned Compensation* infotype and choose *Create*. Choose *Pay Grade* or *Pay Scale* and enter the values specified at the end of the solutions. Save your entries.

2. Create an *Employee Group / Subgroup* infotype record for the ## *Personnel Development Manager* position using the following values:

Employee group:	Active
Employee subgroup:	X7

- a) *SAP Easy Access* → *Human Resources* → *Organizational Management* → *Expert Mode* → *Position*

Ensuring you are in the correct plan version and that the correct validity period is displayed, select the ## *Personnel Development Manager* position. When the position and its infotypes are displayed, select the *Employee Group / Subgroup* infotype, and choose *Create*.

Use F4 help to find the values *Active* and *X7*. Save your entries.

Continued on next page

3. Maintain the *Work Schedule* infotype for your ## Human Resources organizational unit. Enter 40 hours per week for all working time groups. Flag it as the general work schedule.
 - a) *SAP Easy Access* → *Human Resources* → *Organizational Management* → *Expert Mode* → *Organizational Unit*

Choose the ## *Human Resources* organizational unit to be maintained and choose the *Work Schedule* infotype. Check the organizational unit and the validity period are correct and choose *Create*. Store the following data:

Hours per week:	40
Work schedule groups:	All work schedule groups
General working time:	X

4. Review the changes you have made in the *Organization and Staffing* interface. Which changes can you not find here?
 - a) *SAP Easy Access* → *Human Resources* → *Organizational Management* → *Organization and Staffing* → *Display*

To display the work center and the relationship to the ## *Personnel Development Manager*, choose the position and switch to the *Task Assignment* view in the overview area. The work center is displayed when you expand the tree structure.

You can see all other changes in the Staff Assignments Structure on the individual tab pages.

Organizational unit ## <i>Human Resources</i>	Work Schedule tab page
Position ## <i>Personnel Development Manager</i>	Working Time tab page

You will not be able to find the Planned Compensation infotype on the Organization and Staffing user interface. In the Task Assignment view, however, you can check the infotype maintenance. Select the job, ## *Manager*, by double clicking. In the menu, choose *Goto* → *Detail Object* → *Enhanced Object Description* for individual infotype maintenance and check the Planned Compensation infotype.



Lesson Summary

You should now be able to:

- Maintain relevant infotypes in expert mode
- Explain how the main Organizational Management infotypes are used



Unit Summary

You should now be able to:

- Maintain relevant infotypes in expert mode
- Explain how the main Organizational Management infotypes are used



Test Your Knowledge

1. Which of the following infotypes are the main properties?

Choose the correct answer(s).

- ☐ A Account Assignment Features (IT1008)
- ☐ B Relationships (IT1001)
- ☐ C Planned Compensation (IT1005)
- ☐ D Quota Planning (IT1019)
- ☐ E Object (IT1000)

2. Which of the following statements is true?

Choose the correct answer(s).

- ☐ A The Work Schedule infotype delivers default values for the Planned Working Time infotype in Personnel Administration.
- ☐ B If specified in Customizing, the Work Schedule infotype can influence the calculation of full-time equivalents (FTE) for the positions of the organizational unit for which it is maintained.
- ☐ C The Employee Group/Subgroup infotype delivers default values for Personnel Administration when a position is reoccupied for which the infotype is maintained.
- ☐ D The Employee Group/Subgroup acts as a grouping characteristic for positions when maintaining different work schedules (IT1011) for the different valuation of FTEs.
- ☐ E The Quota Planning infotype is a planning tool for a future organizational structure. You can only create one infotype record for each period for an organizational unit.
- ☐ F You can use reports to generate positions from the infotype record Quota Planning. A further report is available that allows you to delimit unoccupied positions.
- ☐ G A position can be occupied and vacant at the same time
- ☐ H A position can be vacant and obsolete at the same time
- ☐ I A position can be occupied and obsolete at the same time



Answers

1. Which of the following infotypes are the main properties?

Answer: B, E

The Object and Relationships infotypes are considered to be the main properties because they define the existence and relevance of organizational objects.

2. Which of the following statements is true?

Answer: B, C, D, F, G, I

These statements should be discussed with the instructor.

Unit 19



General Structures



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

This unit describes the use of the interfaces General Structures and Matrix Organizations based on the Customizing of evaluation paths.



Unit Objectives

After completing this unit, you will be able to:

- Use the General Structures interface
- Define new evaluation paths

Unit Contents

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Lesson: Setting Up General Structures and Evaluation Paths



426

Lesson Duration: 60 Minutes

Lesson Overview

This lesson explains how to work with the *General Structures* interface. It describes and shows you in detail how you can start from any object type and search according to evaluation paths to depict a structure that is not composed of standard object types.

This unit also focuses on Customizing evaluation paths in theory and practice.



Lesson Objectives

After completing this lesson, you will be able to:

- Use the General Structures interface
- Define new evaluation paths



For more information, see the instructor guide in SAPNet.

Business Example

The holding company of your enterprise is to be depicted in the organizational plan. You use the object type “Legal Entity” (OR) and a new evaluation path.



You can create objects and relationships along selected evaluation paths based on the root object.

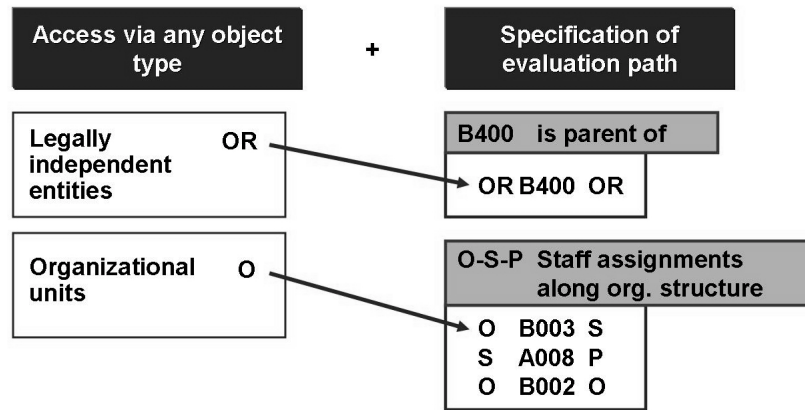


Figure 214: General Structures: Initial Access

The *General Structures* user interface allows you to use all the object types and relationships available in Customizing. The *Simple Maintenance* and *Organization and Staffing* interfaces do not allow this or only allow this after you have made extensive changes to the Customizing settings.

When you access the interface, you enter the start object type and the relevant object ID. You must then select a valid evaluation path. The evaluation path you select determines the relationships that will be displayed in the tree structure starting with the root object.

It also determines which relationships can be changed or created.



Hint: If only one relationship has to be maintained between objects, the relationship itself is the evaluation path.

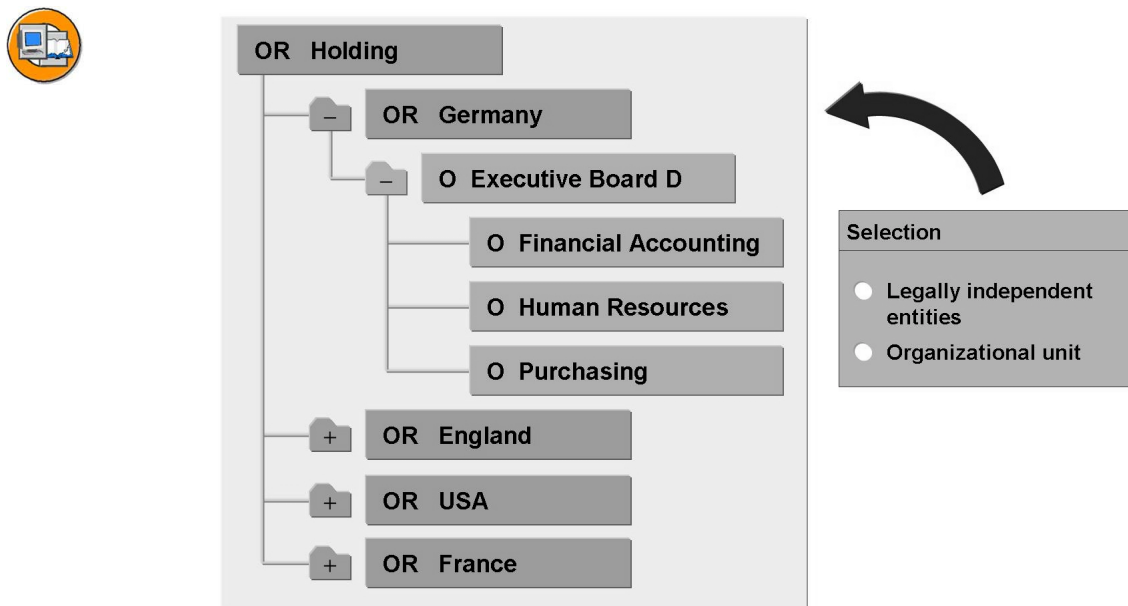


Figure 215: General Structures

You can display and maintain other objects and structures in the organizational plan using the *General Structures* interface in Organizational Management.

The interface works in the same manner as Simple Maintenance.

From a root object type, object ID and evaluation path, you can create, maintain, and display your structures.

You can use the object type OR to depict the legal situation of a holding company in relation to the enterprises you lead. This is not included in any of the SAP standard interfaces of Organizational Management. However, you can use the General Structures interface to represent these relationships.

*** Holding**

A corporation that possesses enough voting stock (common share) in another company to control its policies and management.



An evaluation path represents a chain of relationships between particular object types.

Example:

O-S-P Staff assignments along organizational structure

O B003 S
S A008 P
O B002 O

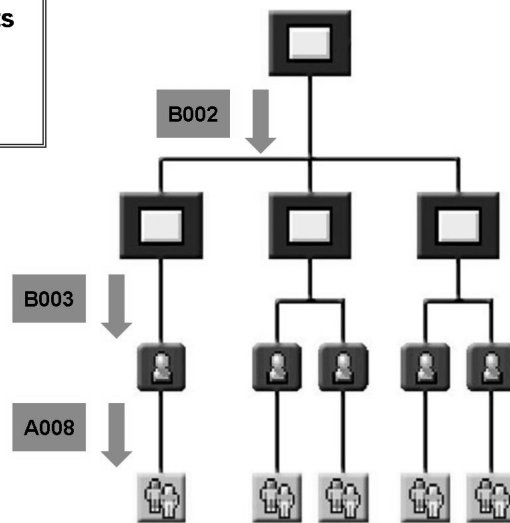


Figure 216: Evaluation Paths

Evaluation paths define the relationships with which a structure is created. As objects may have multiple relationships, it is not always possible for them all to be displayed in a single view.

Example:

To view staff assignments along the organizational structure (evaluation path O-S-P) you would start with an organizational unit and identify relationships to positions then, from the positions, identify persons holding those positions. After the cycle is finished you go to any subordinate organizational units and start the cycle again. Cost centers and their relationships to organizational units are not displayed for this evaluation path.



You can search for existing evaluation paths using the object types you know.

Figure 217: Searching for Evaluation Paths

To enable you to choose the correct evaluation path, the General Structures interface allows you to enter up to three object types that exist in the evaluation path as selection criteria when using input help.

Enter the objects you want to find in the evaluation path as the selection criteria.

When you access the *General Structures* interface you can also generate *Temporary Evaluation Paths*.



EvalPath	Info	Evaluation Path Text
...		...
...		...
O-S-P		Staff assignments along organizational structure
...		...



No.	Object Type	A/B	Relat'ship	Relat'ship Name	Priority	Rel.Obj.Type		
10	O	B	003	Includes	*	S	<input type="checkbox"/>	
20	S	A	008	Holder	*	P	<input type="checkbox"/>	
30	O	B	002	Is line manager of	*	O	<input type="checkbox"/>	

Figure 218: Creating Evaluation Paths

Evaluation paths are created in Customizing for Organizational Management under *Basic Settings*.

One or more relationships form the navigation paths for an evaluation. These relationships enable you to report on and display structural information (for example, the organizational plan or the reporting structure).

In the Skip field in individual maintenance, you can specify that a particular navigation path should be included in the evaluation path, but that the results should not be displayed.

You can create alphanumeric evaluation paths with a maximum of 8 characters starting with Z.

Do not change any existing evaluation paths unless you created them yourself. These changes affect all programs and reports that work in the background with the evaluation path you have changed. This can cause system problems.

If you wish to use an alternative evaluation path for a report that has a SAP standard evaluation path, you can specify this in the Value Abbr. column.



Exercise 24: Setting Up General Structures and Evaluation Paths

Exercise Duration: 30 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Use the General Structures interfaces to further maintain an organizational plan.
- Add objects to evaluation paths.

Business Example

The General Structures user interface is used to depict an alternative legal constellation such as a holding company within the organizational plan.

Guidelines

Use your group number (##) as a prefix to all of your object names and abbreviations. (01-Organizational Unit, 01-Position, for example.)

Use 06/01/ of the current year as the start date of your editing period.

Task 1:

Creating legal entity relationships

1. Using legal entity Holding Training International as your root organizational unit, create a legal entity (##-Legal) with effect from 06/01/2000. Use evaluation path B400.
2. Relate your ## *Human Resources* organizational unit with your legal entity ## *Legal* as of 06/01/2000. Use evaluation path 'A401'.
3. Display the structure of the legal entity (OR) Holding Training International using General Structures. Use evaluation path Z_OR-O.

Task 2:

Creating a new evaluation path Use your group number as a suffix for your evaluation path names (Z_OR-O##, for example)

1. Extend the evaluation path Z_OR-O to include the positions and their holders.
2. Use your new evaluation path to view your legal entity structure ## Legal in General Structure maintenance.

Solution 24: Setting Up General Structures and Evaluation Paths

Task 1:

Creating legal entity relationships

1. Using legal entity Holding Training International as your root organizational unit, create a legal entity (##-Legal) with effect from 06/01/2000. Use evaluation path B400.

- a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Organizational Plan → General Structures → Change.*

Access *Holding Training International* by entering object type OR (legal entity), and the evaluation path B400, as well as the name. Enter 06/01/ of the current year – 12/31/9999 as the validity period.

Once the structure is displayed, select *Holding Training International* and choose Create. Enter the name and abbreviation of your legal entity (##-Legal), and check that the correct validity period is entered. Save your entries.

2. Relate your ## *Human Resources* organizational unit with your legal entity ## *Legal* as of 06/01/2000. Use evaluation path 'A401'.

- a) Select your legal entity and choose *Goto → New Evaluation Path* from the menu bar. Replace the evaluation path with A401 and choose *Enter*. Choose *Create Relationship* from the application toolbar. Search for your organizational unit ## *Human Resources*, making sure the validity period for the relationship is correct. Save your entries.

3. Display the structure of the legal entity (OR) Holding Training International using General Structures. Use evaluation path Z_OR-O.

- a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Organizational Plan → General Structures → Display.*

Replace the name of your legal entity with the root organizational unit *Holding Training International* and enter the evaluation path Z_OR-O. Choose *Display*. As the class completes this exercise you will begin to see the entire structure.

Continued on next page

Task 2:

Creating a new evaluation path Use your group number as a suffix for your evaluation path names (Z_OR-O##, for example)

1. Extend the evaluation path Z_OR-O to include the positions and their holders.

- a) Creating Evaluation Paths

Access the SAP Implementation Guide (IMG) and choose:

IMG → Personnel Management → Organizational Management → Basic Settings → Maintain Evaluation Paths

Copy the evaluation path Z_OR-O. Rename the evaluation path to include your group number (Z_OR-O##), and give it a new name. Save your entries and confirm that all dependent entries should be copied. Return to the table containing all the evaluation paths.

Select your new evaluation path from the table and choose *Evaluation Path (Individual Maintenance)*. The details of your evaluation path are displayed. Choose New Entries, and enter the required information to add positions and holders to your evaluation path.

Once you have done this, your evaluation path should look as follows:

OR	A401	*	O
O	B003	*	S
S	A008	*	P
O	B002	*	O
OR	B400	*	OR

In the SAP Easy Access menu, choose Human Resources → Organizational Management → Organizational Plan → General Structures → Display.

Enter the name of the root organizational object (in this case *Holder Training International*) and your new evaluation path. Display the structure.

2. Use your new evaluation path to view your legal entity structure ## Legal in General Structure maintenance.

- a) See 1a)



Lesson Summary

You should now be able to:

- Use the General Structures interface
- Define new evaluation paths



Unit Summary

You should now be able to:

- Use the General Structures interface
- Define new evaluation paths



Test Your Knowledge

1. Which information can be used to display structures on the General Structures interface?

2. How can you find a suitable evaluation path and check its structure?

3. What is an evaluation path?



Answers

1. Which information can be used to display structures on the General Structures interface?

Answer: Start object, evaluation path, validity period

2. How can you find a suitable evaluation path and check its structure?

Answer: You can use input help on the selection screen of the General Structures interface or, after you have accessed the interface, by choosing from the menu Goto - New Evaluation Path or Display Evaluation Path. If you use input help to select evaluation paths you can use the details icon to display the contents of an evaluation path.

3. What is an evaluation path?

Answer: A chain that relates objects.

Unit 20



Integration with Personnel Administration



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

The Integration with Personnel Administration unit provides a comprehensive introduction to configuring the basic settings for integration in Customizing for the Organization Management component. It also provides basic information on the resources used to set up and maintain same.



Unit Objectives

After completing this unit, you will be able to:

- Explain the connection between Organizational Management and Personnel Administration
- Understand the role of positions in integration
- Explain how to set up integration between Organizational Management and Personnel Administration
- Describe the tools used to set up and maintain integration

Unit Contents

Lesson: Basic Integration Settings	498
Lesson: Integration Tools	505
Exercise 25: Integration Tools	511

Lesson: Basic Integration Settings



440

Lesson Duration: 60 Minutes

Lesson Overview

This lesson provides you with an overview of possible Customizing settings for integration between Organizational Management and Personnel Administration. It discusses all the necessary settings and their effect.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain the connection between Organizational Management and Personnel Administration
- Understand the role of positions in integration



For more information, see the instructor guide in SAPNet.

Business Example

Your company is implementing Personnel Administration and Organizational Management.

To guarantee consistent data retention, you must ensure that the two components are integrated.



Figure 219: Organizational Management Integration

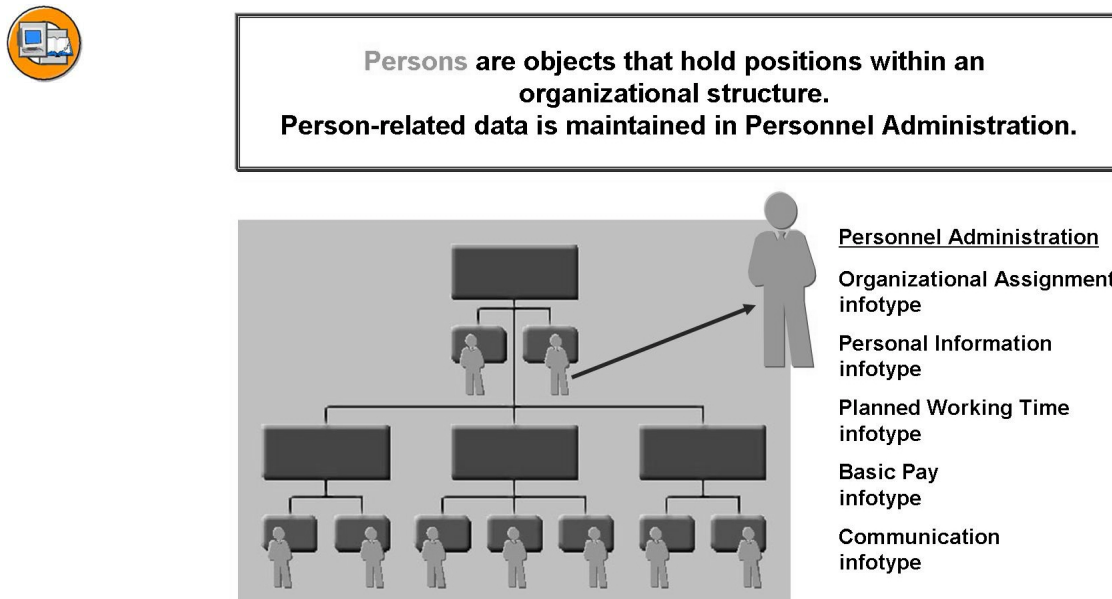


Figure 220: Integration with Personnel Administration

Data on persons is maintained in Personnel Administration. However, integration with Organizational Management enables you to automate at least some of the maintenance tasks.

Organizational Management is integrated with Personnel Administration so that the Organizational Assignment infotype is filled mainly with data from Organizational Management if integration is active. Consequently, some of the infotype fields are no longer ready for input in the *Maintain HR Master Data* transaction.

You can also use Organizational Management to generate default values for Personnel Administration.

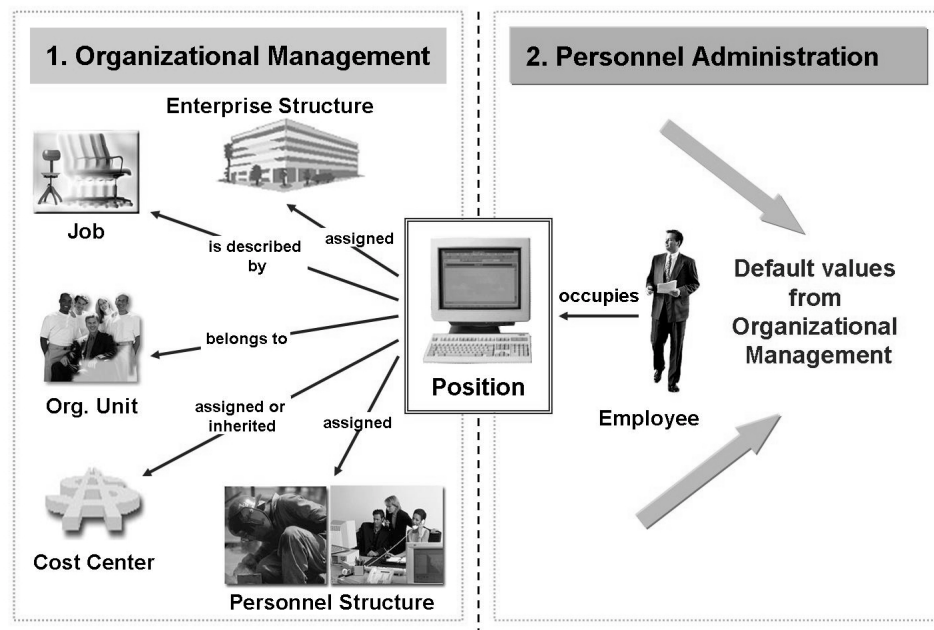


Figure 221: Integration: Organizational Assignment

If integration is active and a person is assigned to a position in HR Master Data, the objects related with the position in HR Master Data are written to the Organizational Assignment infotype. If integration is active, the *Organizational Unit*, *Job*, and *Cost Center* fields are not ready for input. Instead, they are filled from Organizational Management only.

In addition, every organizational change is stored in both the Organizational Assignment infotype in HR Master Data and in the organizational plan in *Organizational Management*. This means: If a change is made in Organizational Management that affects the organizational assignment of a person, the change is written to the person's Organizational Assignment infotype. Similarly, a change made to a person's organizational assignment (for example, as a result of a personnel action) in HR Master Data is written to Organizational Management.



Basic settings for integration with T77S0

	Group	Sem. Abbr.	Value Abbr.	Description
	PLOGI	PLOGI	01	Integration Variant / Active Plan Version
	PLOGI	ORGA	X	Integration Switch: Organizational Management

PLOGI Feature Which employees are taken into account for integration between Organizational Management and Personnel Administration?	TCLAS	Transaction for Data Retention
	MOLGA	Country Grouping
	BUKRS	Company Code
	WERKS	Personnel Area
	BTRTL	Personnel Subarea
	PERSG	Employee Group
	PERSK	Employee Subgroup

Figure 222: Basic Integration Settings

In table T77S0 the integration plan version must first be set in the entry *PLOGI* *PLOGI*. If you do not define an integration plan version, integration is not active.

You then specify which employees are to be involved in integration. To do this, maintain the PLOGI feature. You can form groupings according to the following criteria:

- Country grouping
- Company code
- Personnel area
- Personnel subarea
- Employee group
- Employee subgroup

Enter *X* for participation in integration. If there is to be no integration, leave the field blank.

If you activate the PLOGI ORGA switch in T77S0 by entering X, you also activate integration between the Personnel Administration and Personnel Planning components as a whole. PLOGI ORGA is essentially the “main integration switch”. This switch enables Personnel Administration and the organizational plan to remain consistent.



	Group	Sem. Abbr.	Value Abbr.	Description
	PLOGI	EVENB	X	Enhanced Integration (X = On, Space = Off)
	PLOGI	EVCCC	02	Master Data Action: Company Code Change
	PLOGI	EVCRE	X	Generate Event for Entry T77INT
	PLOGI	PRELI	99999999	Integration: Standard Setting
	PLOGI	PRELU		Integration PA Update Online or Batch

	PPABT	PPABT	1	Department Switch
--	-------	-------	---	-------------------

Figure 223: Additional Integration Settings

If you set the “PLOGI EVENB” switch to “X”, you thereby fulfill the prerequisite to be able to move a person, position, or organizational unit within an organizational structure if this change also requires a change in the company code for the affected person(s).

PLOGI PRELI contains a default value that is used if an employee has not been assigned to a position in the integrated system.

If the value “BTCL” is entered for PLOGI PRELU, this means that if integration is active (see PLOGI PLOGI), changes in Organizational Management are not posted immediately to Personnel Administration (“Organizational Assignment” infotype 0001). The personnel numbers affected by the change are merely collected before they are posted as a batch input at a later time.

If the field is “” or “0” is entered, the data is posted immediately.

If a numeric value is entered, the system first determines how many personnel numbers are affected for each action in Organizational Management. If this number exceeds the numeric value, the same applies as for entry BTCL or alternatively as for entries “” or “0”.

PPABT PPABT: The department switch activates the inclusion of the Department indicator in infotype 1003 for integration.



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.



Lesson Summary

You should now be able to:

- Explain the connection between Organizational Management and Personnel Administration
- Understand the role of positions in integration

Lesson: Integration Tools



446

Lesson Duration: 60 Minutes

Lesson Overview

This lesson focuses on the tools available for integrating the Organizational Management and Personnel Administration components and ensuring that this integration remains consistent.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain how to set up integration between Organizational Management and Personnel Administration
- Describe the tools used to set up and maintain integration



For more information, see the instructor guide in SAPNet.

Business Example

Your company is implementing Personnel Administration and Organizational Management.

To guarantee consistent data retention, you must ensure that the two components are integrated.

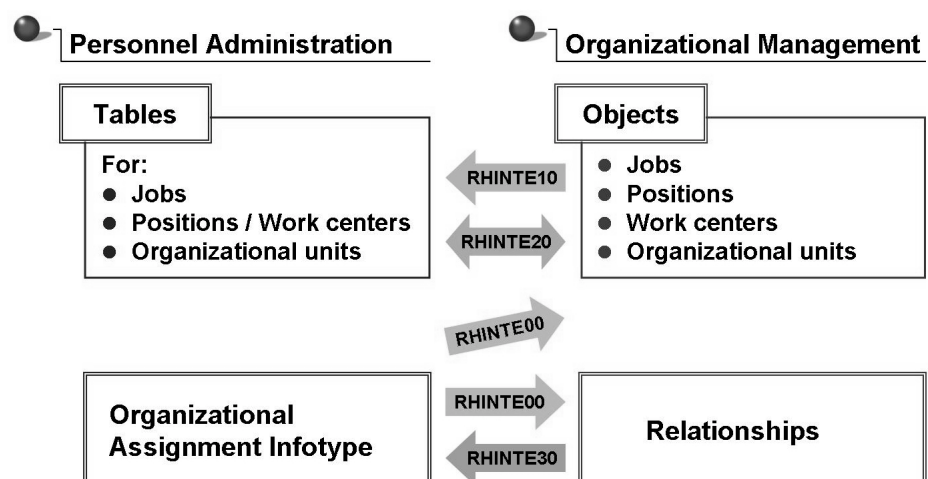


Figure 224: Integration Tools

The sequence in which you prepare to activate integration depends on which of the following constellations applies to you:

- You already use Personnel Administration and want to implement Organizational Management. The data in Personnel Administration already includes information about organizational units and positions.
- You already use Organizational Management and Personnel Administration is to be integrated with Organizational Management.

If HR Master Data is available in the above form, you can use report *RHINTE00* to transfer data to Organizational Management.

The following reports are relevant for the transfer of data from Organizational Management to Personnel Administration:

- Report *RHINTE10* generates the required table entries in Personnel Administration for Organizational Management objects that are relevant for integration.
- Report *RHINTE30* allows you to transfer a person's organizational assignments (positions, organizational units, and so on) from Organizational Management to the *Organizational Assignment* infotype of Personnel Administration.

Report *RHINTE20* checks whether all of the objects relevant for integration exist in both Personnel Administration and Organizational Management.



Period	
<input checked="" type="radio"/> Today	<input type="radio"/> Current Month
<input type="radio"/> To Today	<input type="radio"/> From Today
<input type="radio"/> Other Period	_____ to _____
Selection	
Personnel Number	_____ to _____
Employee Status	_____ to _____
Personnel Area	_____ to _____
Personnel Subarea	_____ to _____
Employee Group	_____ to _____
Employee Subgroup	_____ to _____
Target Plan Version	01
Transfer Leavings Only	<input type="checkbox"/>
Status for Structure	
Relationship Percentage	100.00
<input checked="" type="checkbox"/> Create Object(s)	
<input checked="" type="checkbox"/> Create Relationship(s)	
<input type="checkbox"/> Create Holder Relationship Only	
Relate Cost Center with	0
Batch Input Session	_____
Lock Session Until	_____
Keep Session	<input type="checkbox"/>
<input type="checkbox"/> Test	

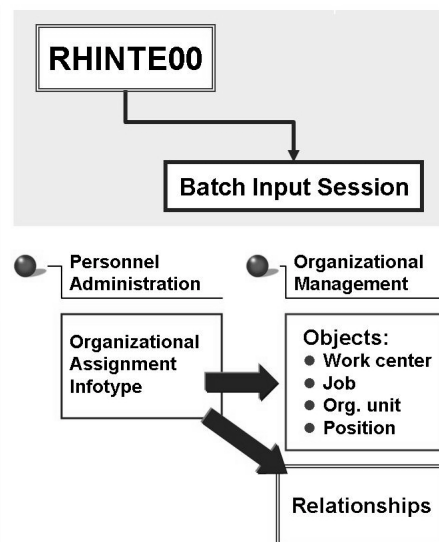


Figure 225: RHINTE00

Report *RHINTE00* reads records of the *Organizational Assignment* infotype in Personnel Administration. It creates a batch input session that creates the relevant Organizational Management objects and relationships, depending on the parameters you set.

The following objects are created:

- Work center (Object type A)
- Job (Object type C)
- Organizational Unit (Object type O)
- Position (Object type S)

The following relationships can be created:

- S <-> P (Person occupies position, A/B 008) or
- A <-> P (Person occupies work center, A/B 008)
- C <-> S (Job describes position, A/B 007)
- O <-> S (Organizational unit incorporates position, A/B 003)
- O <-> K (Master cost center assignment, A 011) or
- S <-> K (Master Cost Center Assignment, A 011) depending on the report parameters

No relationships between organizational units or between positions are created. These relationships must be maintained manually in Organizational Management. If you select the *Create Holder Relationships Only*, option, the report transfers only assignments of persons to positions that have changed to Organizational Management.

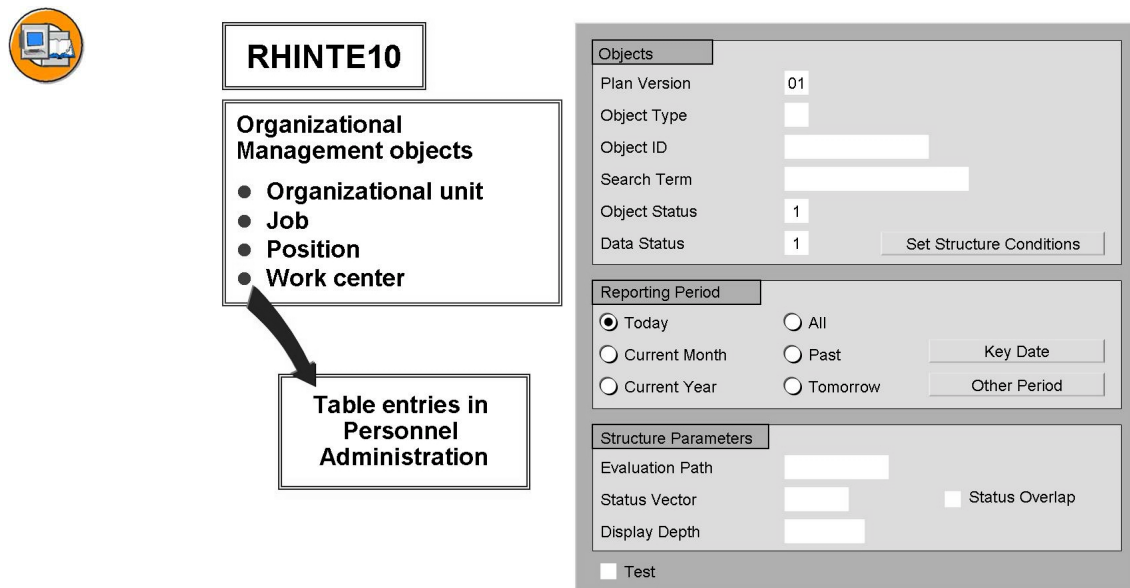


Figure 226: RHINTE10

Report *RHINTE10* enables you to transfer objects created in Organizational Management to HR Master Data.

Only objects that are in status *1* (active) in the integration plan version are transferred.

The integration objects are required for the *Organizational Assignment* infotype.

A program run can take place for one or all object types, or for a selected structure.

You can also use report *RHINTE10* to delete objects in the Customizing tables for Personnel Administration. You should be particularly cautious when you delete objects.

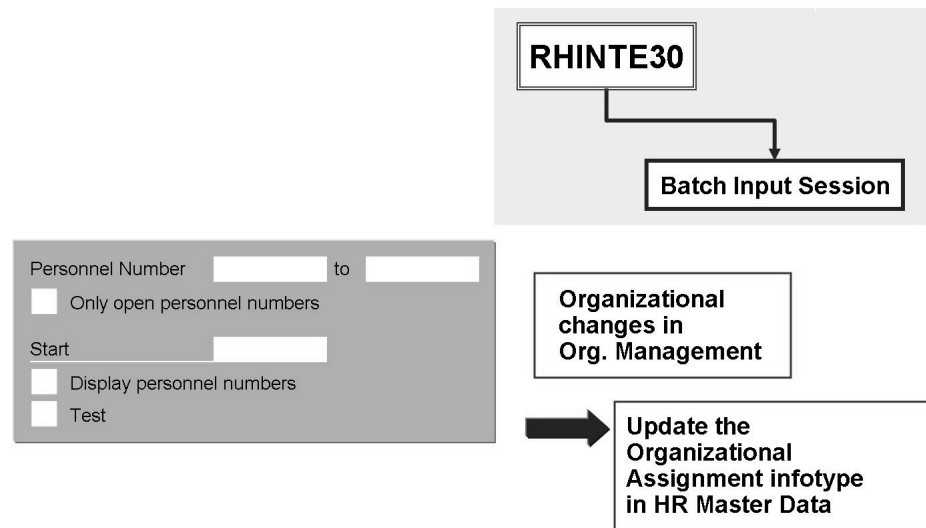


Figure 227: RHINTE30

Report *RHINTE30* enables you to update the *Organizational Assignment* infotype (Personnel Administration) for the selected personnel numbers with data created by previous actions in Organizational Management.

Report *RHINTE30* creates a batch input session for specified personnel. The session updates the *Organizational Assignment* infotype for the persons concerned. The organizational assignment that was created by previous actions in Organizational Management is transferred to the *Organizational Assignment* infotype. A new record is created in the infotype for the start date entered.

You must activate integration between Organizational Management and Personnel Administration before you can start the report.

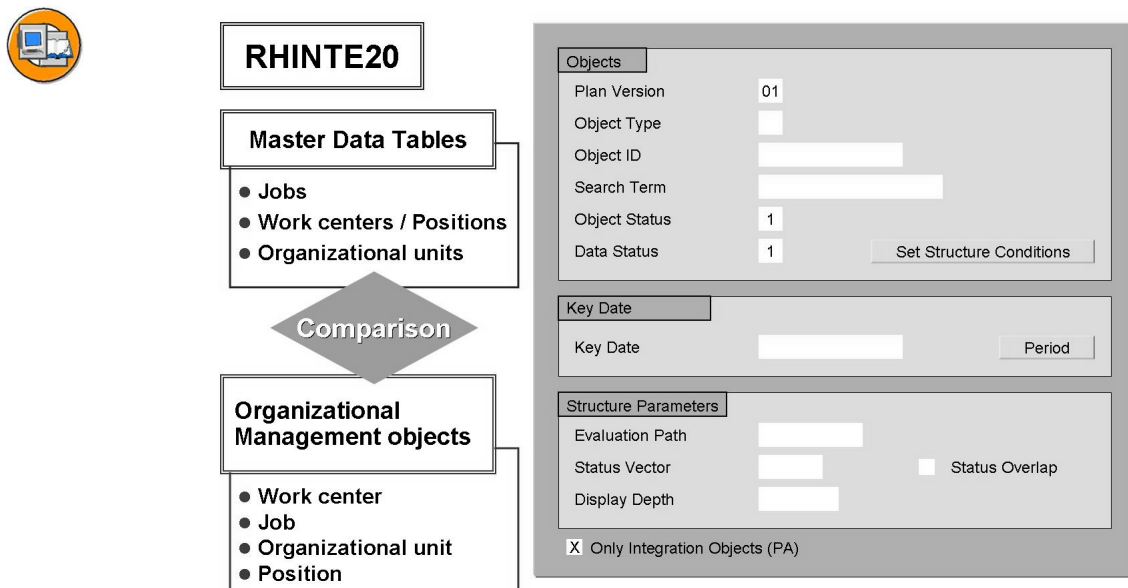


Figure 228: RHINTE20

Report *RHINTE20* enables you to check whether the object types relevant for integration have been created in both Personnel Administration and Organizational Management.

Objects that are missing in either Personnel Administration or Organizational Management can be created immediately.

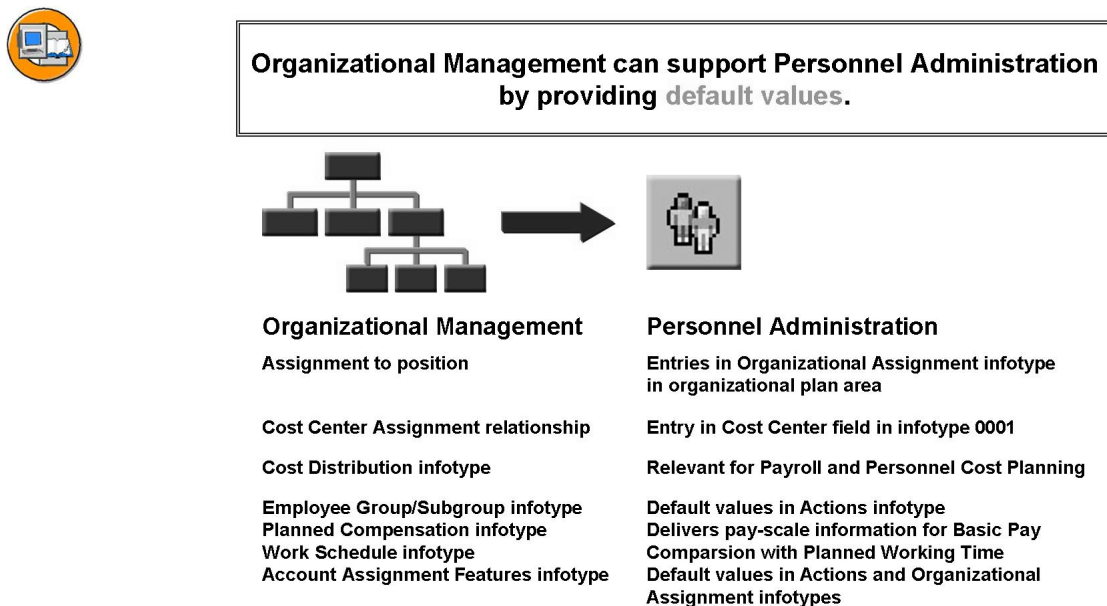


Figure 229: Integration: Default Values and Fixed Specifications



Exercise 25: Integration Tools

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Explain the process of hiring a person for a position in an integrated system and recognize values that are transferred from Organizational Management to Personnel Administration.
- Find the Customizing steps needed to activate integration.
- Identify the reports needed to integrate Organizational Management and Personnel Administration in various situations.

Business Example

Your company is implementing Personnel Administration and Organizational Management. This will streamline the process of hiring new employees to fill your vacant positions. You must be aware of the various tools available to ensure data consistency between the two components.

Task 1:

Hiring a new employee

1. Use the personnel action *Hiring HR505* to hire an employee for the position *## HR Manager*. Give the new employee your name, and hire them as of today's date. Assign the personnel number 505992##.

In the *Communication* infotype, use your logon name (HR505-##) in subtype 0001, System User Name.

Fill all other infotypes with the data of your choice.

2. Which fields in the Actions and Organizational Assignment infotypes already contain information you entered in Organizational Management?

Task 2:

Setting up integration

1. Find out which Customizing activities you need from the Implementation Guide (IMG) to activate integration between Organizational Management and Personnel Administration.

Continued on next page

Task 3:

Organizational Management tools

1. Name the four tools needed to ensure data in Personnel Administration and Organizational Management is consistent. Explain their use.

Solution 25: Integration Tools

Task 1:

Hiring a new employee

1. Use the personnel action *Hiring HR505* to hire an employee for the position *## HR Manager*. Give the new employee your name, and hire them as of today's date. Assign the personnel number 505992##.

In the *Communication* infotype, use your logon name (HR505-##) in subtype 0001, System User Name.

Continued on next page

Fill all other infotypes with the data of your choice.

- a) *Human Resources -> Personnel Management -> Administration -> HR Master Data -> Personnel Actions*

Enter your personnel number (505992##) and today's date as the start date. Select the personnel action *Hiring HR505* and choose *Execute*.

Position: ## HR Manager

Choose *Enter*. You should derive the following information from the position:

Personnel area: CABB

Employee group: 1

Employee subgroup: X7

The personnel area is inherited to the higher-level organizational unit ## Human Resources from the Account Assignment Features infotype. You maintained the information for the employee group / subgroup for the position ## HR Manager.

Once you have filled the relevant infotype fields, choose *Save*. You are automatically taken to the next infotype, until you have entered the necessary data for all infotypes.

Personal Data infotype – enter your name, date of birth, and marital status. Choose *Save*.

Organizational Assignment – note which fields have already been filled with information from Organizational Management. The information originates from:

The *Account Assignment Features* infotype for organizational unit ## Human Resources, the *Cost Center Relationship*, in the *Organizational Plan* area, the relationships from P to S, S to O, and S to C.

Choose *Save*.

Basic Pay infotype – the system responds differently depending on the type of planned compensation you used for the job ## Manager in infotype 1005.

Communication infotype – enter your user ID (HR505-##) for the subtype System User Name SAP System (SY-UNAME).

Fill all other infotypes with the data of your choice.

Continued on next page

2. Which fields in the Actions and Organizational Assignment infotypes already contain information you entered in Organizational Management?
 - a) IT Personnel Actions: personnel area, employee group, employee subgroup
 - b) IT Organizational Assignment: cost center, personnel subarea, job, organizational unit

Task 2:

Setting up integration

1. Find out which Customizing activities you need from the Implementation Guide (IMG) to activate integration between Organizational Management and Personnel Administration.
 - a) The Customizing steps required to activate integration between Organizational Management and Personnel Administration are located in the IMG under:

IMG -> Personnel Management -> Organizational Management -> Integration -> Integration with Personnel Administration

Task 3:

Organizational Management tools

1. Name the four tools needed to ensure data in Personnel Administration and Organizational Management is consistent. Explain their use.

a) **RHINTE10:**

Transfers Organizational Management data to tables in Personnel Administration.

RHINTE20:

Checks whether all objects relevant for integration exist in both Personnel Administration and Organizational Management.

RHINTE30:

Transfers a person's organizational assignment from *Organizational Management* to *Personnel Administration*.

RHINTE00:

Reads the *Organizational Assignment* infotype in Personnel Administration and creates the relevant objects and relationships in Organizational Management.



Lesson Summary

You should now be able to:

- Explain how to set up integration between Organizational Management and Personnel Administration
- Describe the tools used to set up and maintain integration



Unit Summary

You should now be able to:

- Explain the connection between Organizational Management and Personnel Administration
- Understand the role of positions in integration
- Explain how to set up integration between Organizational Management and Personnel Administration
- Describe the tools used to set up and maintain integration



Test Your Knowledge

1. What does the entry PLOGI PLOGI in table T77S0 define?

2. What is the “main integration switch” between the Personnel Planning components and Personnel Administration?

3. Which settings must be made for integration via batch input?

4. Which of the following reports is only concerned with objects?

Choose the correct answer(s).

- ☐ A RHINTE00
- ☐ B RHINTE10
- ☐ C RHINTE20
- ☐ D RHINTE30



Answers

1. What does the entry PLOGI PLOGI in table T77S0 define?

Answer: Integration plan variant

2. What is the “main integration switch” between the Personnel Planning components and Personnel Administration?

Answer: PLOGI ORGA

3. Which settings must be made for integration via batch input?

Answer: The value BTCI must be entered for PLOGI PRELU in T77S0

4. Which of the following reports is only concerned with objects?

Answer: B, C

Report RHINTE10 transfers/deletes organizational objects in the interface tables of Personnel Administration. Report RHINTE20 synchronizes table HRP1000 with report RHINTE10. Report RHINTE20 synchronizes table HRP1000 with the interface tables and can create objects in alternate. Reports RHINTE00 and RHINTE20 also transfer "Relationships".

Unit 21



Manager's Desktop and Manager Self-Service



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

The Manager's Desktop and Manager Self-Service unit provides managers with basic information on using both of these interfaces. It discusses and compares the technical requirements. This unit also deals with integration into Organization Management and the integration of other components.



Unit Objectives

After completing this unit, you will be able to:

- Describe the concept of Manager's Desktop
- Use Manager's Desktop
- Describe the integration between Manager's Desktop and Organizational Management
- Describe the concept and contents of Manager Self-Service
- Describe the integration between Manager Self-Service and Organizational Management
- Find further information about Manager Self-Service

Unit Contents

Lesson: Manager's Desktop.....	522
Exercise 26: Manager's Desktop.....	531
Lesson: Manager Self-Service	535

Lesson: Manager's Desktop



462

Lesson Duration: 60 Minutes

Lesson Overview

This lesson presents you with Manager's Desktop as a “Single Point of Entry” for managers in an enterprise. At times when tasks are being decentralized and line managers and supervisors take on additional personnel responsibility, Manager's Desktop can be used as a tool for displaying and maintaining important information. Manager's Desktop makes a manager's area of responsibility more accessible for making administrative and strategic decisions.

The application and the functions it offers are introduced in this unit.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the concept of Manager's Desktop
- Use Manager's Desktop
- Describe the integration between Manager's Desktop and Organizational Management



For more information, see the instructor guide in SAPNet.

Business Example

The managers at your company need an easy-to-use tool that will support them in their daily administrative and organizational tasks and strategic decisions. Therefore, you implement Manager's Desktop.



Manager's Desktop provides support for managers when they perform administrative and planning tasks.

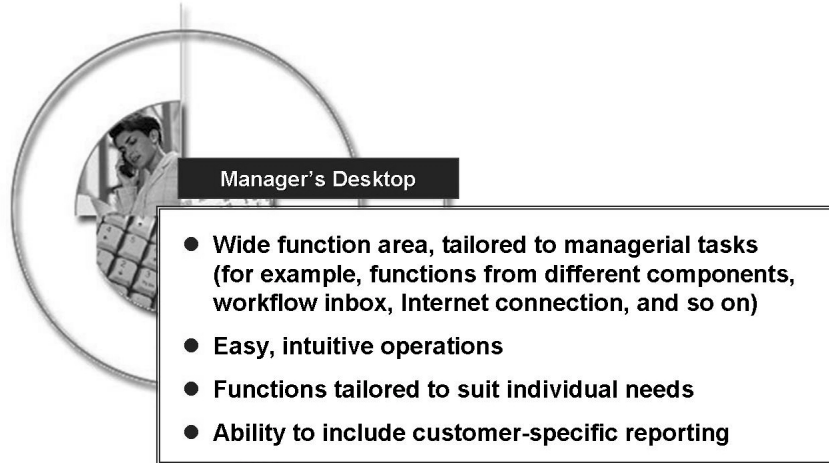


Figure 230: Overview

The SAP *Manager's Desktop* supports managers who have personnel responsibility.

You can access organizational structures including employees who are directly and indirectly assigned to your area of responsibility. *Manager's Desktop* takes line managers directly to the personnel data of individual employees, or displays budget overviews that allow managers to compare planned and actual costs. *Manager's Desktop* is just as effective when displaying the current leave situation, thus providing a reliable basis for making decisions about employees' leave requests.

Manager's Desktop is integrated with the InfoSet Query and the Human Resources Information System (HIS) in mySAP HR. Department heads can report on all employee-related data and access customer-specific reports.

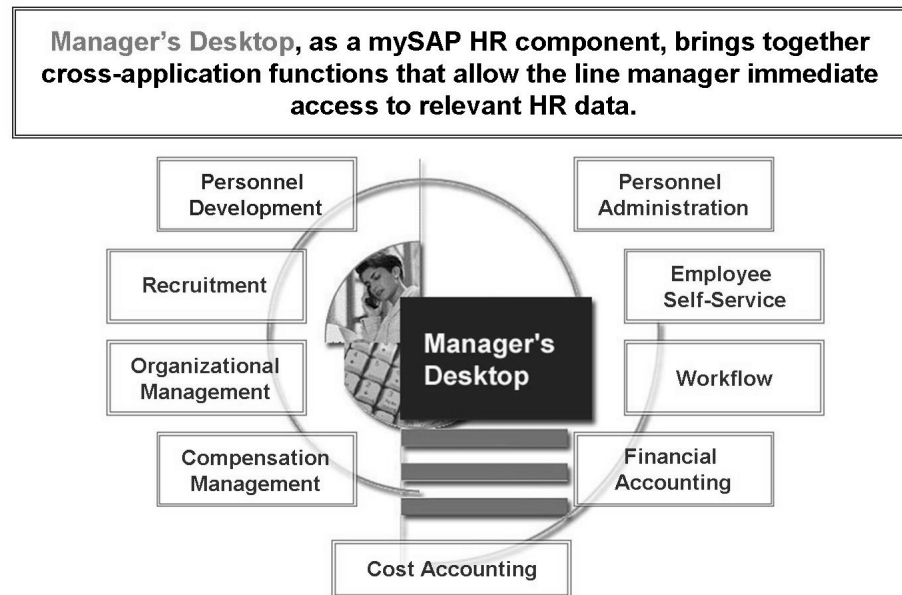


Figure 231: Integration

Integration with Personnel Administration

Must be active if you want to make transfers or change jobs or positions. If integration is not active, error messages are displayed.

Integration with Accounting

Must be active if you want budget evaluation to be possible, and cost center information to be available.

Workflow Support

Workflow ensures that employees in the HR department are seamlessly integrated in these processes.

Integration with Employee Self-Service

Manager's Desktop not only integrates managers and Human Resources, but also provides information sources for the entire enterprise. If you use SAP Employee Self-Service (ESS), employees can enter leave requests or submit travel expenses directly in the system. These requests are then forwarded to the relevant manager's inbox in Manager's Desktop, where he or she can check and approve the data. Approved requests or rejections are sent via SAP Workflow to the HR department and the employee concerned. Manager's Desktop allows managers to participate in processes in Employee Self-Service (ESS).



The user can deactivate categories and functions that he or she does not require from the initial screen and from other screens in the application.

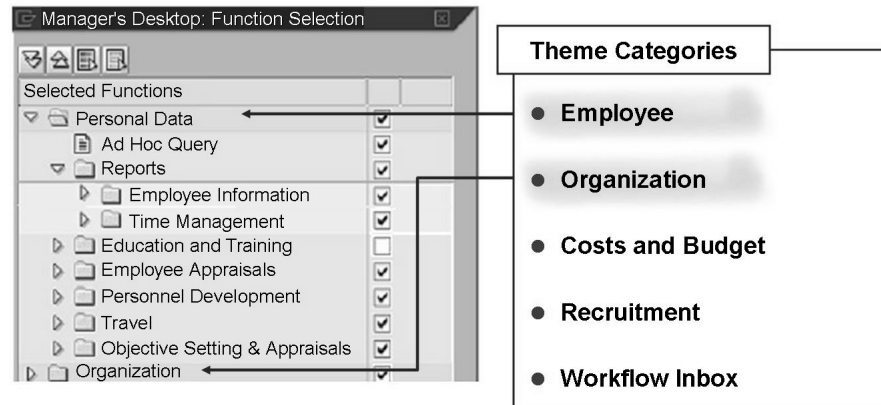


Figure 232: Theme Categories and Function Lists

The Manager's Desktop offers a total of eight theme categories, each with their own function list

You can use function codes in Customizing to adjust these categories to suit customer requirements. You can also add more functions.

The user can deactivate categories and functions that he or she does not need from the initial screen and from other screens in the application. These settings are saved together with the user's profile and are used each time the user logs onto the system. The user can switch between his or her user-specific settings and the standard settings at any time.

Additional individual requests or special information requirements can also be included. If you frequently need to access particular Intranet or Internet pages, you can access them easily using corresponding links.

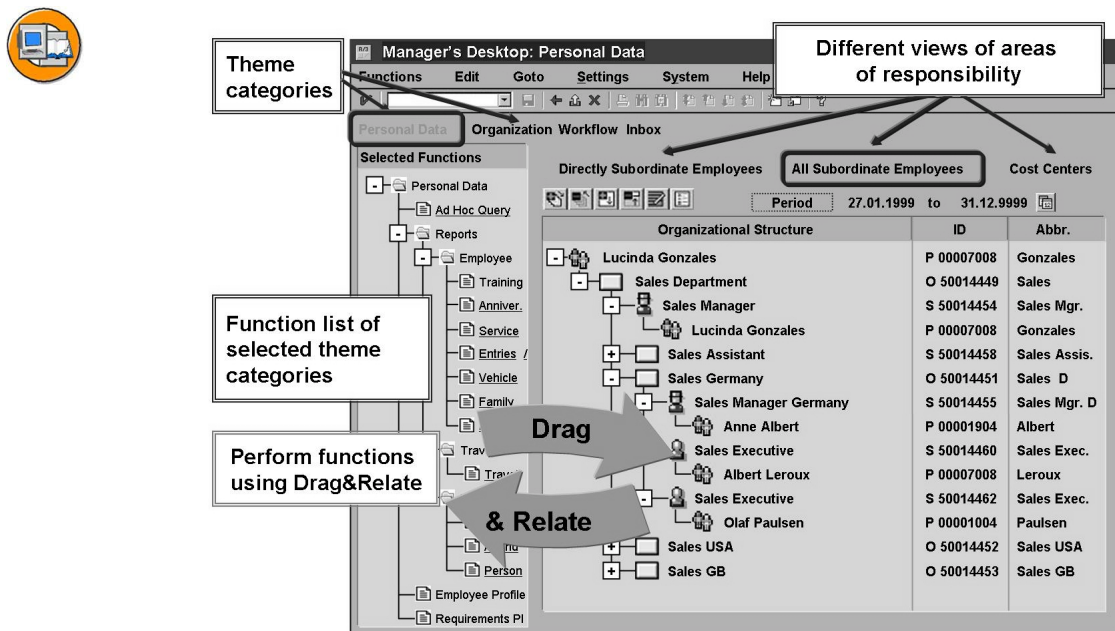


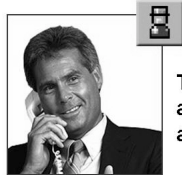
Figure 233: Screen Structure

The screen is divided into a right screen area, where your area of responsibility is displayed, and a left screen area, in which the available functions are displayed in a function tree.

The tab pages in the right screen area allow you to access different views (evaluation paths) of the organizational structure for your area of responsibility. Up to 12 tab pages can be assigned to each subject area.

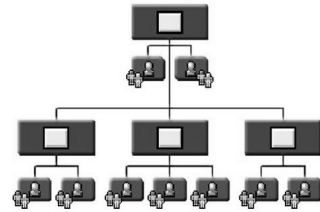


You must have maintained an organizational plan that includes organizational units, positions, and persons.



The manager should have a chief position within an organizational unit.

**The Communication infotype must be maintained for the manager
(subtype: System User Name)**



Personnel Number		Name	
EE Group		Pers. Area	
EE Subgroup			
Valid		to	
Communication			
Type			
ID/Number			

Figure 234: Prerequisites

A prerequisite for using *Manager's Desktop* is an organizational plan of your company, including the organizational structure and the staff assignment, that is, the assignment of employees (persons) or users to positions in the *Organizational Management* component.

The manager should have a chief position within an organizational unit. The system uses the chief position indicator (relationship A/B012 between the position and the organizational unit) to determine the organizational units that are related either directly or indirectly with the position holder.

To display corresponding cost centers, you must assign a cost center to the chief position or organizational unit.

The Communication infotype (IT0105) for a manager must be maintained with the system user name (subtype 0001) of the manager.

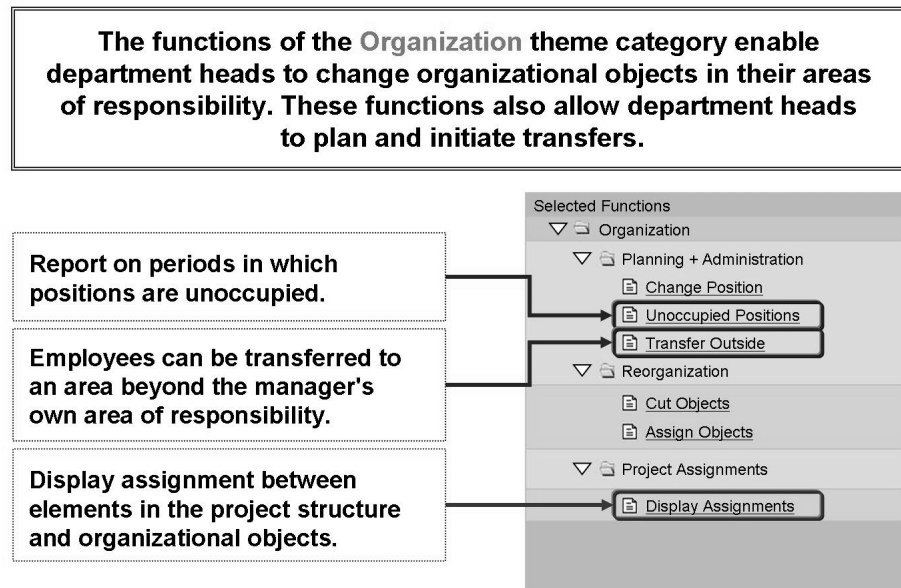


Figure 235: Integration with Organizational Management

By dragging and dropping, you can move organizational objects within the tree structure and move employees (persons) within your area of responsibility. It is also possible to initiate the transfer of an employee to an area outside of the manager's area of responsibility.

As soon as personal data (for example, IT0001) is affected by an action from Manager's Desktop, the changes planned by the manager are first stored as a plan in Manager's Desktop and a workflow is started to the relevant HR administrator. The HR administrator can then decide how to respond to the manager's proposal. The HR administrator can reject, change, or perform the action. The employee's data is not changed in Organizational Management or in Personnel Administration until the HR administrator has reached a final decision regarding the action.

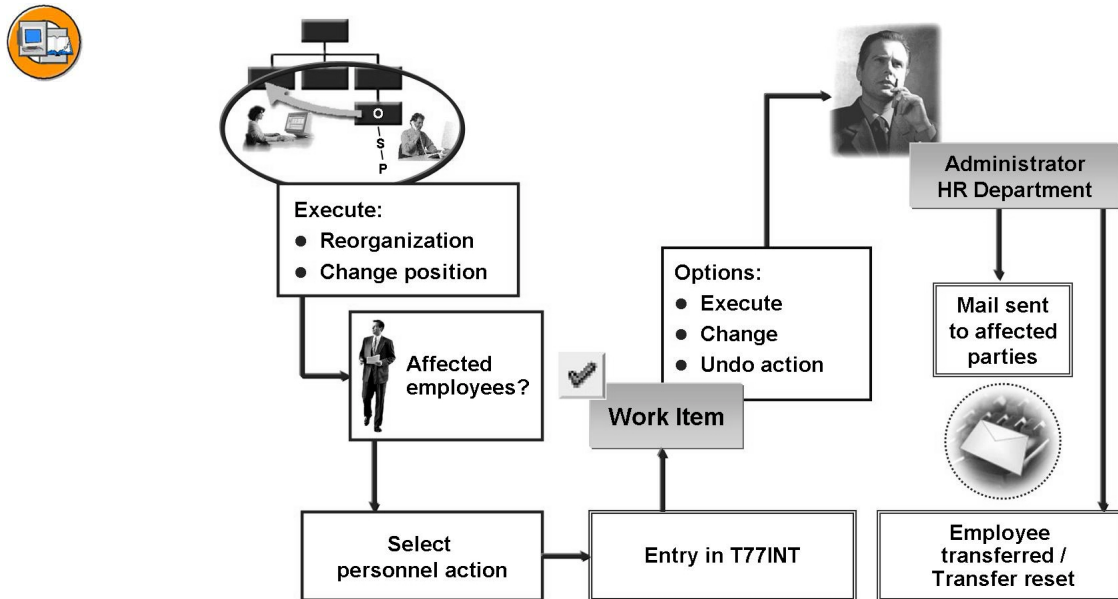


Figure 236: Workflow

Integrated workflow support plays an important role in operations that are processed locally. Workflow ensures that employees in the HR department are seamlessly integrated in these processes. For example, if an employee is to be transferred, the line manager starts the action by entering the basic data. A while later, the action appears in the workflow inbox of the responsible HR administrator, who takes over further processing and reports back to the manager and employee in the same way when the action has been completed.

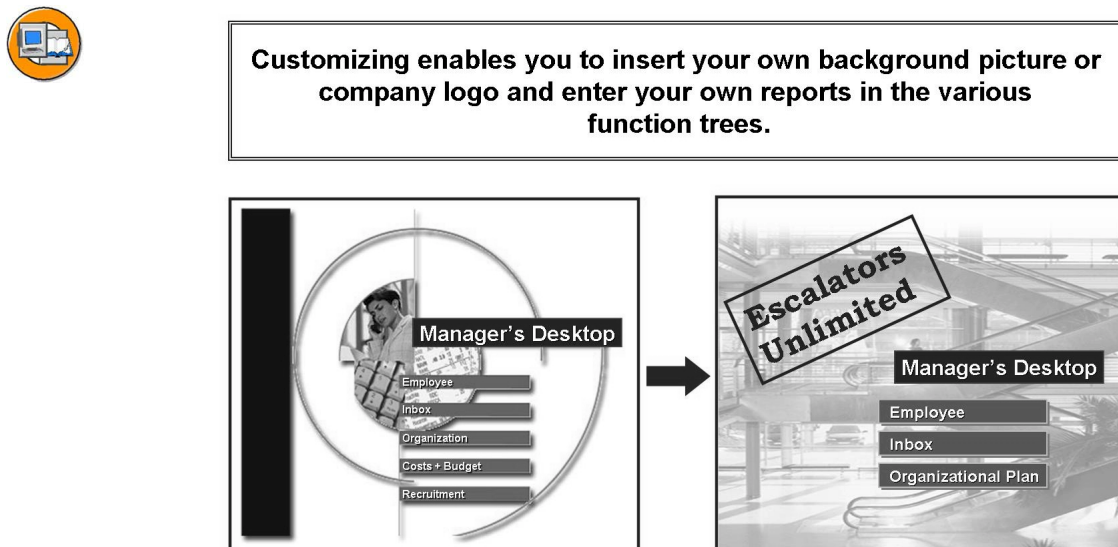


Figure 237: Enhancement

You make general settings for configuring and enhancing the functions and screen layout of *Manager's Desktop* in the relevant sections of the Implementation Guide (IMG).

Using the Customizing wizard you can enhance the range of functions in *Manager's Desktop*.



Exercise 26: Manager's Desktop

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Use Manager's Desktop to rename and move positions within your area of responsibility.
- Run reports using Manager's Desktop
- Change the appearance of the Manager's Desktop interface

Business Example

You are a manager and wish to change the attributes of certain positions within your area of responsibility. You also wish to report on the organizational units of which you are in charge.



Hint: To be able to use Manager's Desktop, you must have assigned your user ID (HR505-##) to the person you hired in the Communication infotype (subtype 0001) in the previous unit.

Task 1:

Making organizational changes using Manager's Desktop

1. Rename your ##-HR Controller position, ## Personnel Cost Planner / Controller. The new name is to be effective as of 12/01 of the current year. Relate this position with the job ## Administrator. Use the action *Organizational Reassignment*.
2. Enter a description for your new position.

Task 2:

Reporting using Manager's Desktop.

1. Identify the unoccupied positions in your *Human Resources* organizational unit and other subordinate organizational units.

Task 3:

Changing the appearance of Manager's Desktop

1. Hide the *Transfer Outside* function in the Organization theme category.

Solution 26: Manager's Desktop

Task 1:

Making organizational changes using Manager's Desktop

1. Rename your *##-HR Controller* position, *## Personnel Cost Planner / Controller*. The new name is to be effective as of 12/01 of the current year. Relate this position with the job *## Administrator*. Use the action *Organizational Reassignment*.

- a) *SAP Easy Access* → *Human Resources* → *Manager's Desktop*

On the initial screen of Manager's Desktop, choose the *Organization* theme category. The organizational unit for which the person you hired is responsible (via the chief position assignment) is displayed. Choose the *Directly Subordinate Employees* tab page on the right of the screen and select the *## HR Controller* position.

Expand the function list on the left of the screen. Choose *Change Position* from the function list and enter the new name, *## Personnel Cost Planner / Controller*, of the position in the dialog box that is displayed. Relate the position with the job *## Administrator* using *Action 02*.

2. Enter a description for your new position.

- a) Enter a general description for the position and save your entries.



Hint: You can drag the position *## Human Resources Controller* to the entry *Change Position* in the function list. You can then make the necessary changes.

Task 2:

Reporting using Manager's Desktop.

1. Identify the unoccupied positions in your *Human Resources* organizational unit and other subordinate organizational units.
 - a) On the *All Subordinate Employees* tab page, select the *Human Resources* organizational unit and then choose *Unoccupied Positions* from the function list. A list of the unoccupied positions in your organizational unit is displayed. (Link the positions with the employees by dragging and dropping.)

Continued on next page

Task 3:

Changing the appearance of Manager's Desktop

1. Hide the *Transfer Outside* function in the Organization theme category.
 - a) Right-click on the function *Transfer Outside*. Choose *Hide* from the list that is displayed. If you want to display the function again, right-click on *Planning and Administration* and choose *Function Selection*. All the functions that you can show are displayed in a dialog box.



Lesson Summary

You should now be able to:

- Describe the concept of Manager's Desktop
- Use Manager's Desktop
- Describe the integration between Manager's Desktop and Organizational Management

Lesson: Manager Self-Service



475

Lesson Duration: 30 Minutes

Lesson Overview

This lesson provides you with a short overview of the functions in Manager Self-Service and its integration with SAP Enterprise Portal 5.0 and the back-end system SAP R/3 Enterprise.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the concept and contents of Manager Self-Service
- Describe the integration between Manager Self-Service and Organizational Management
- Find further information about Manager Self-Service



For more information, see the instructor guide in SAPNet.

Business Example

The management at your enterprise (line managers, project managers, team leads) require a tool that assists them when they perform daily tasks and make strategic decisions. The tool should be intuitive to use and be able to run in a portal. You, therefore, implement Manager Self-Service.

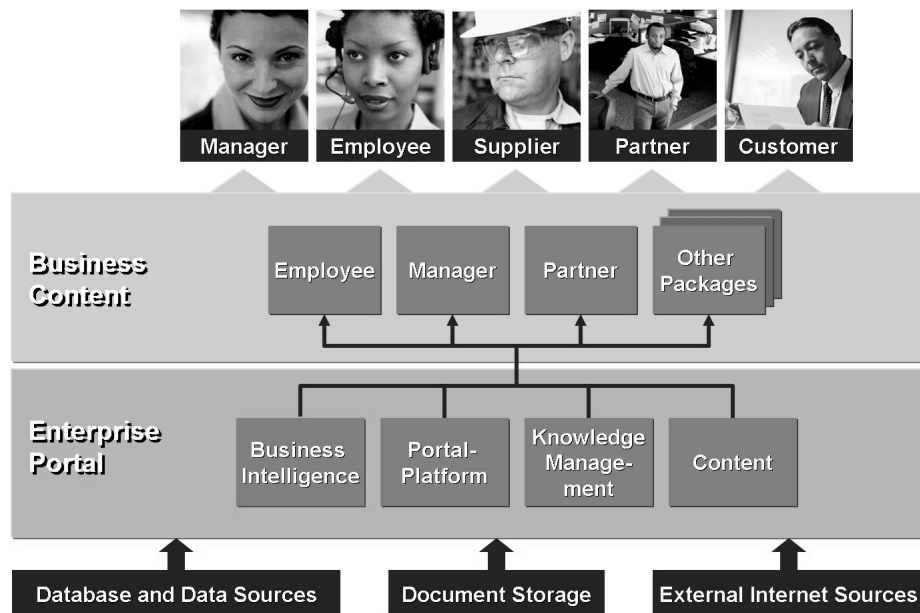


Figure 238: MSS as Part of the Portal

The Business Package for Manager Self-Service is an integral part of the mySAP Enterprise Portal.

Business packages contain preconfigured content and functions that you can easily import into the mySAP Enterprise Portal.

The mySAP Enterprise Portal provides various tools that enable you to change the content and tailor it to suit the specific requirements of your enterprise without requiring extra programming.

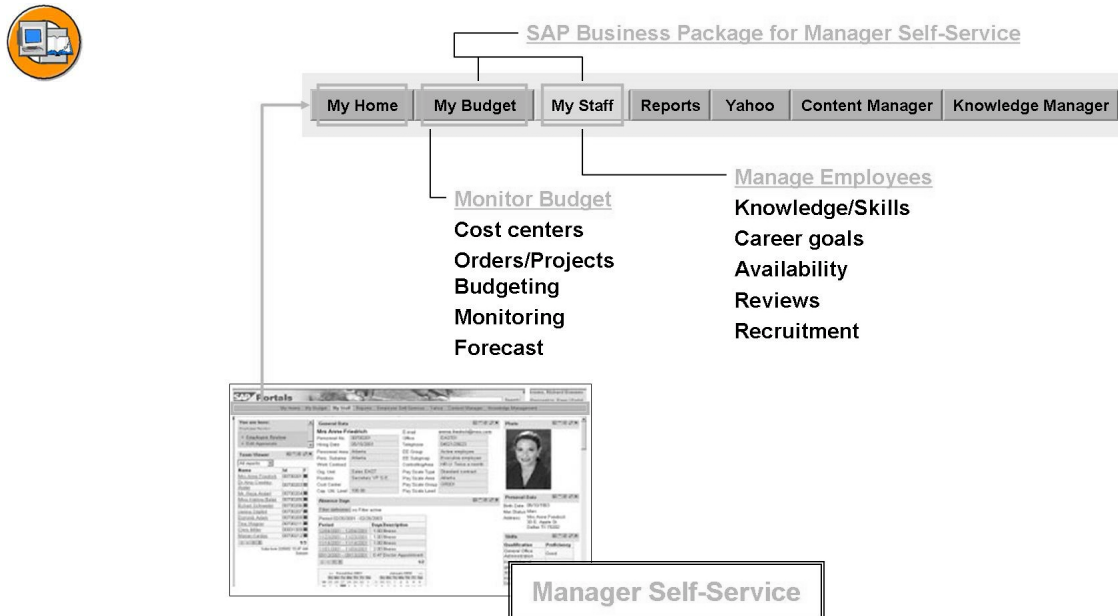


Figure 239: Overview

The Business Package for Manager Self-Service (MSS) supports line managers, project leaders, and team leaders by providing them with the relevant information when they perform their tasks.

Managers who have personnel responsibility receive the relevant information about their areas and employees when they log on to the portal and select the relevant page. This enables managers to see at a glance which of their employees are at work or who is on vacation.

Business processes in the HR department can be triggered directly from the Portal. After an employee review, for example, the manager can submit a special payment request for the employee in the Portal.

Manager Self-Service contains a wide variety of reporting options and evaluations that are based on standard SAP R/3 reports and SAP Business Information Warehouse (SAP BW) reports. Customers that do not use SAP BW can nevertheless use Manager Self-Service.

Integration

- Manager Self-Service is a cross-application component. In work area
 - Under “My Staff”, managers can complete all tasks relating to their personnel responsibility.
 - Under “My Budget”, managers can complete all tasks that arise from their responsibility for cost centers and profit centers.



- **Manager Self-Service is a cross-application component**
 - Under My Staff, managers can complete all tasks relating to their personnel responsibility.
 - Under My Budget managers can complete all tasks that arise from their responsibility for cost centers and profit centers.

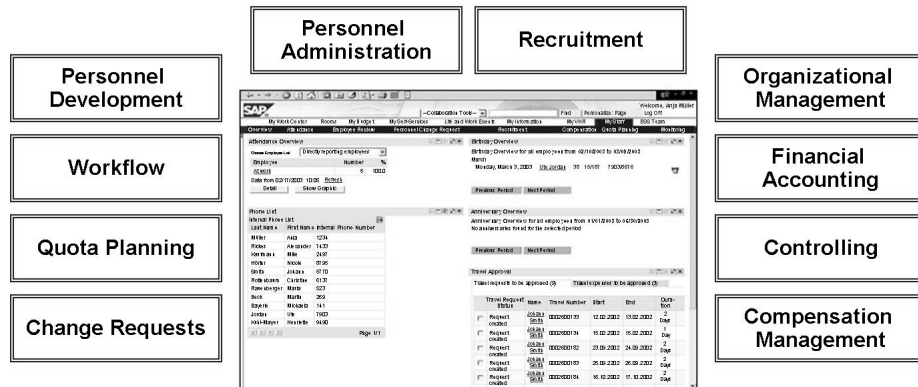


Figure 240: Integration

Integration with Personnel Administration:

- Integratration between Personnel Administration and Organizational Management must be active in the SAP R/3 system you access from the portal.

Workflow support

- Workflows allow you to integrate seamlessly personnel procedures, which are triggered by the manager in the portal (for example, special payments), with other HR processes.



- An organizational plan must exist for your enterprise.

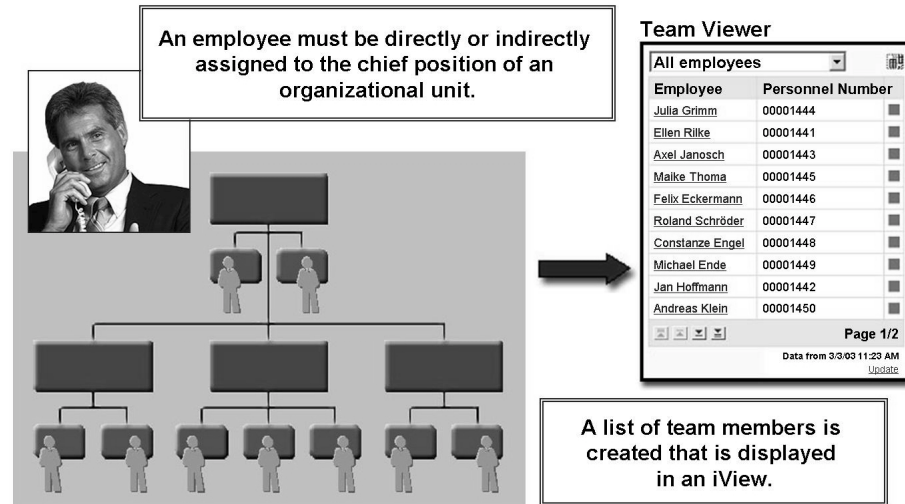


Figure 241: Prerequisites

A prerequisite for using *Manager Self-Service* is an organizational plan of your company, including the organizational structure and the staff assignment, that is, the assignment of employees (persons) or users to positions in the *Organizational Management* component.

The manager should have a chief position within an organizational unit. The system uses the chief position indicator (relationship A/B012 between the position and the organizational unit) to determine the organizational units that are related either directly or indirectly with the position holder.

To display corresponding cost centers, you must assign a cost center to the chief position or organizational unit.

The Communication infotype (IT0105) for a manager must be maintained with the system user name (subtype 0001) of the manager.

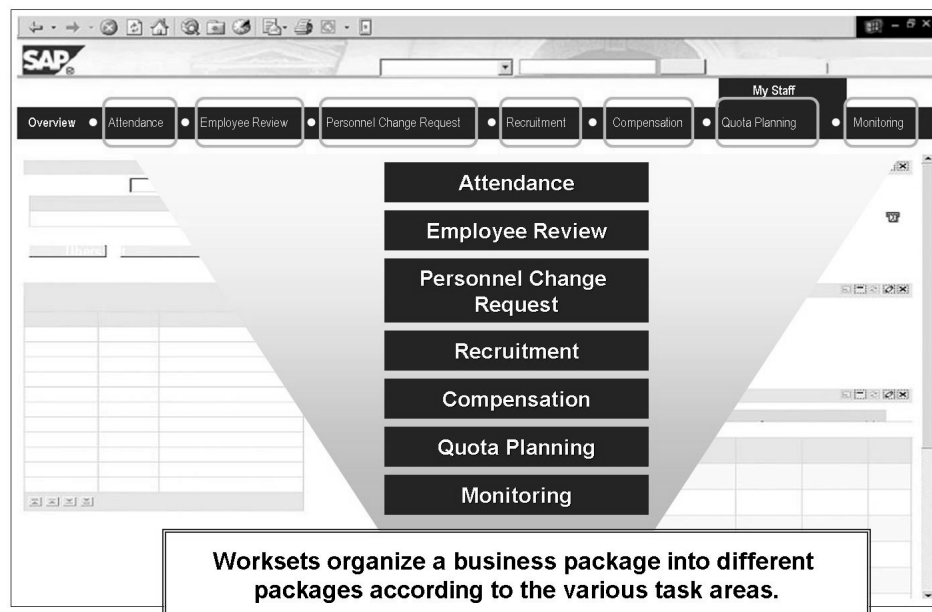


Figure 242: Worksets and Functions

Worksets are packages that contain tools and content for specific business scenarios, such as an employee review.

Worksets include iViews (presentation elements), reports from SAP R/3 and SAP BW, or links to internal or external information (for example, the Internet).

You can tailor worksets to suit the requirements of your enterprise.



- iViews communicate with one another. Data is kept up-to-date.

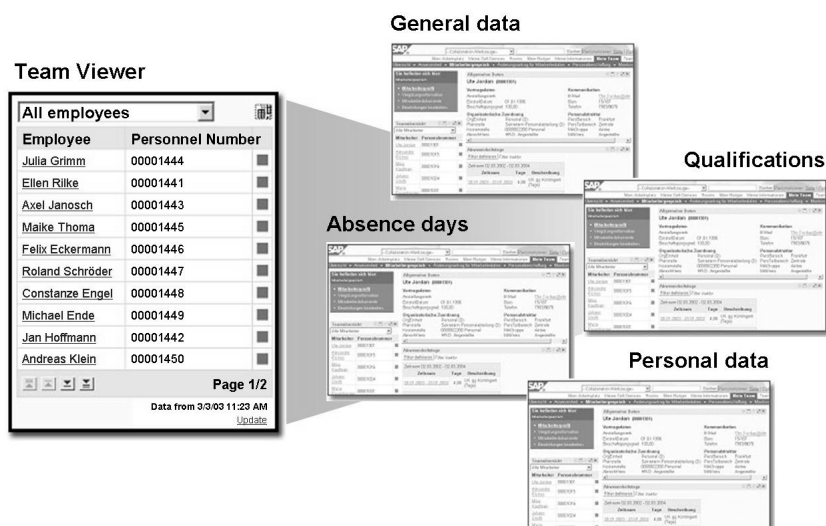


Figure 243: Navigation

The Team Viewer lists all employees that report to the manager (either directly or indirectly). It is the central navigation element in Manager Self-Service.



The screenshot shows two overlapping windows from the SAP Manager Self-Service interface. The 'Report Selection' window on the left displays a tree view of reports, with 'Birthday List' selected under 'SAP Queries'. The 'Org. Unit Selection' window on the right is titled 'Birthday List' and shows a 'Reporting Period' of 'Today' for '01/10/2002'. It lists employees for selection, with a table showing 'Selected Objects' and 'Object Type'.

Employee	ID	Selected Objects	Object Type
<input type="checkbox"/> Mrs. Anne Friedrich	00700201 P		
<input type="checkbox"/> Dr. Amy Crowley-Anderl	00700203 P		
<input type="checkbox"/> Mr. Reza Anderl	00700204 P		
<input type="checkbox"/> Miss Katrina Balas	00700205 P		
<input type="checkbox"/> Eckart Schneider	00700206 P	<input checked="" type="checkbox"/> Dr. Amy Crowley-Anderl	P
<input type="checkbox"/> Janina Göpfert	00700207 P	<input checked="" type="checkbox"/> Mr. Reza Anderl	P
<input type="checkbox"/> Dominik Adam	00700209 P	<input checked="" type="checkbox"/> Miss Katrina Balas	P
<input type="checkbox"/> Tina Wagner	00700211 P		
<input type="checkbox"/> Marian Kardas	00700212 P		
<input type="checkbox"/> Chris Miller	00001309 P		

Page 1/3

Start Report

Figure 244: Integration with Manager's Desktop (MDT) Functions

The Reporting workset enables you to run any Manager's Desktop reports you already use at your enterprise in Manager Self-Service.

The Customizing for this function is based on Customizing for MDT.

In addition, this workset contains additional reports, queries, SAP BW queries.

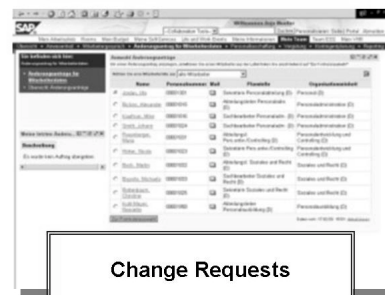
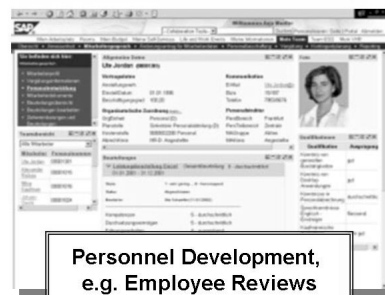
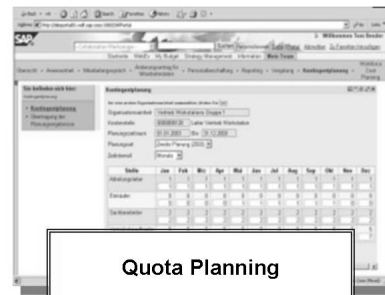
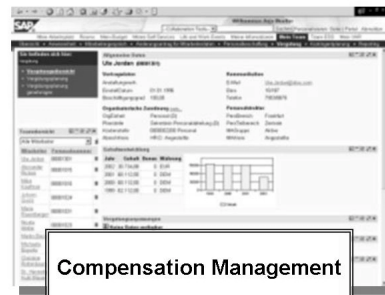


Figure 245: Other Worksets

Other theme categories are covered in the relevant HR courses.

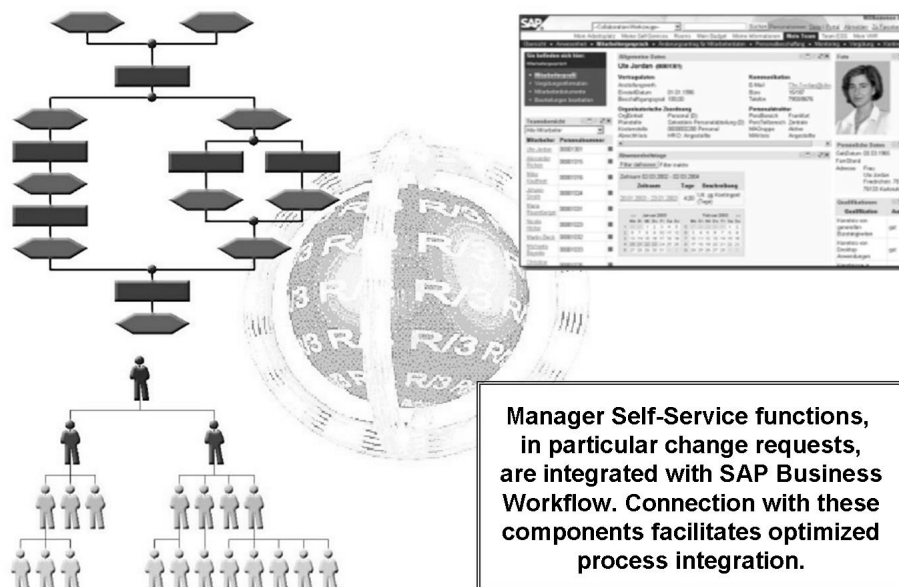


Figure 246: Workflow



These homepages provide you with precise information and checklists to help you implement Manager Self-Service.

www.sdn.sap.com

<http://service.sap.com/MSS>

Figure 247: Documentation and Help with Implementation

To make it quicker and easier for you to implement the Business Package for Manager Self-Service, SAP provides detailed information about the individual prerequisites for each workset.

You can find the relevant document under service.sap.com/mss



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.



Lesson Summary

You should now be able to:

- Describe the concept and contents of Manager Self-Service
- Describe the integration between Manager Self-Service and Organizational Management
- Find further information about Manager Self-Service



Unit Summary

You should now be able to:

- Describe the concept of Manager's Desktop
- Use Manager's Desktop
- Describe the integration between Manager's Desktop and Organizational Management
- Describe the concept and contents of Manager Self-Service
- Describe the integration between Manager Self-Service and Organizational Management
- Find further information about Manager Self-Service

Unit 22



Evaluations and Reports



Further information can be found in the Instructor Guide on the SAP Corporate Portal.

Unit Overview

This unit discusses structural reporting with the main parameters of logical database PCH. As well as the Structure Display/Maintenance (RHSTRU00), a variety of standard reports are also introduced.



Unit Objectives

After completing this unit, you will be able to:

- Explain what parameters to set to call structural reports
- Explain the connection between structural reporting and evaluation paths
- Explain and set up structure conditions
- List and describe the standard reports and their results
- Explain how HIS and HR Reporting Along Personnel Planning Structures function

Unit Contents

Lesson: Basic Concepts of Structural Reporting	548
Lesson: Standard Reports	554
Exercise 27: Standard Reports (optional)	559

Lesson: Basic Concepts of Structural Reporting



486

Lesson Duration: 30 Minutes

Lesson Overview

This lesson discusses the theoretic and technical concepts of structural reporting. It describes the selection screen of the logical database PCH and explains in more detail how to work with structure parameters.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain what parameters to set to call structural reports
- Explain the connection between structural reporting and evaluation paths
- Explain and set up structure conditions



For more information, see the instructor guide in SAPNet.

Business Example

Your company wants to use the organizational plan for structural reports.

The following data is to be displayed:

- Employee lists per organizational unit
- Cost center assignments for positions
- Job descriptions with task and qualification assignments

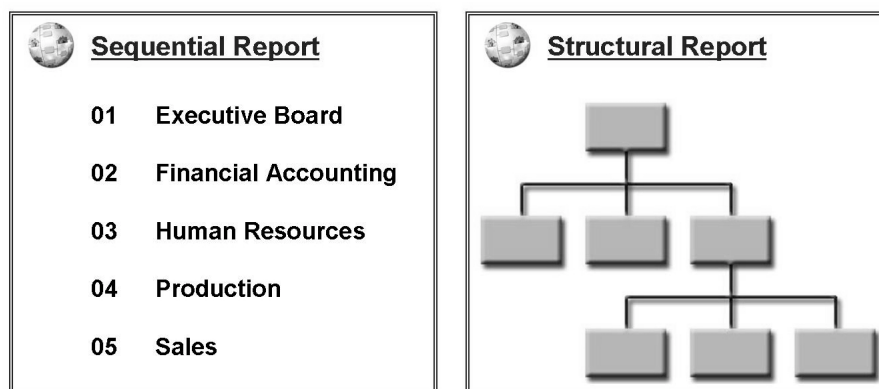


Figure 248: Reporting in Organizational Management

We distinguish between sequential and structural reporting :

- **Sequential:**

In sequential reporting, you can list the objects to be evaluated using their IDs. A sequential report is then run for all specified objects. For example, you may display a list of all existing jobs.

- **Structural:**

In structural reporting, the system interprets the selected object as a root object. Based on this root object and the relationships, the system constructs a hierarchical structure.

- **Sequential and Structural:**

In both sequential and structural reporting, the system treats each selected object as the start object for an evaluation path.

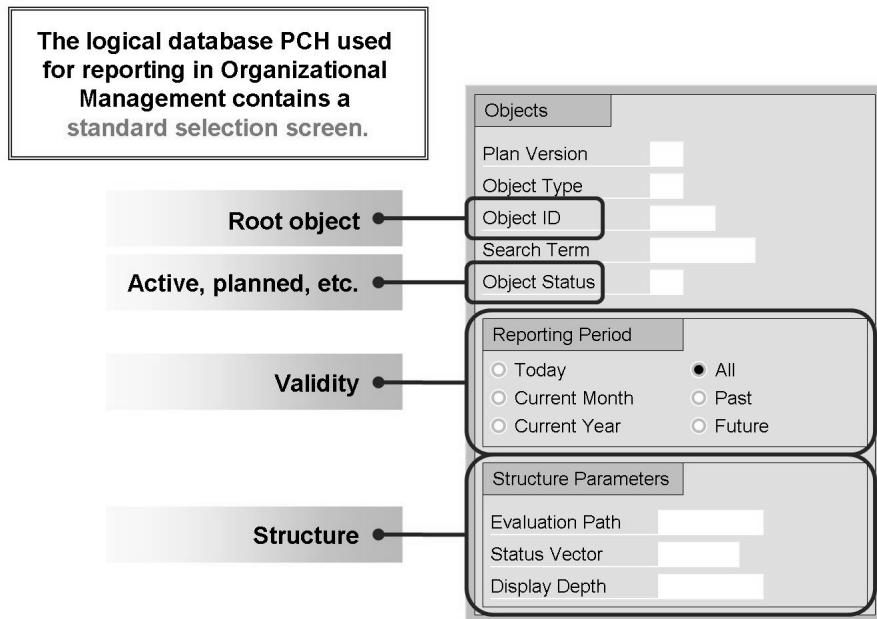


Figure 249: Standard Selection Screen

The standard selection screen allows you to access additional report parameters that you may wish to use in developing your report request.

**Evaluation path:**

Confine an inquiry / report to a specified evaluation path.

Status vector:

This determines which selected objects are read according to the status of their relationships.

Display depth:

Number that specifies the number of levels of organizational structure that are to be shown.

Technical depth:

Number that specifies the number of levels of the organizational structure that are to be processed.

Recursion check:

Indicates whether system is to check the relationship between objects for recursion.

Figure 250: Structure Parameters and Technical Depth

The Technical Depth and the Display Depth fields contain a number up to six digits long. This number corresponds to the different levels of an organizational structure. If you do not wish to limit the display or processing, leave this field blank.

A recursion occurs when the system traces the many relationships among objects in a structure and finds no termination point. The system becomes trapped in a never-ending loop.

The change in status which you simulate using status overlap is temporary only and will not affect your structure.



You can set various **structure conditions** that objects must meet if they are to appear in the structure.

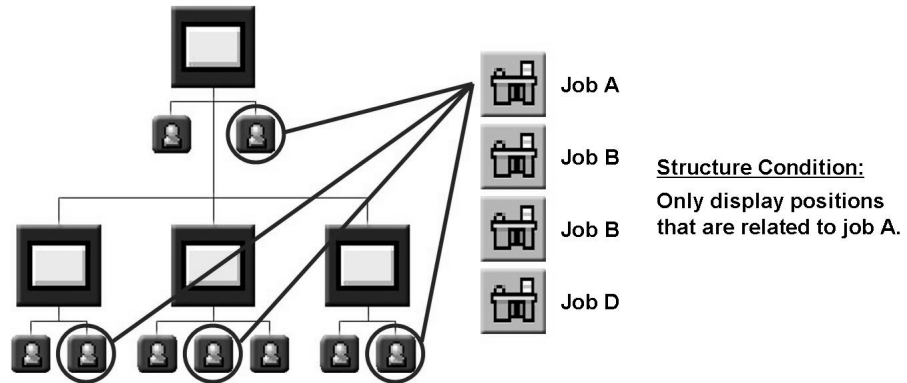


Figure 251: Setting Structure Conditions

You can create more than one structure condition.

In the Structure Conditions dialog box, you can specify which conditions objects must fulfill if they are to be displayed in the structure. You can define several conditions and specify how these conditions are to be used for reporting (and / or).

You can also stipulate when the system is to stop checking the objects in a structure, that is, whether it should check all objects (object filter) or whether it is to stop as soon as it encounters an object that does not meet the set conditions (branch filter).



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.



Lesson Summary

You should now be able to:

- Explain what parameters to set to call structural reports
- Explain the connection between structural reporting and evaluation paths
- Explain and set up structure conditions

Lesson: Standard Reports

Lesson Duration: 30 Minutes

Lesson Overview

This lesson introduces you to a variety of standard reports in Organizational Management. The instructor will show you a selection of these as examples.

**Lesson Objectives**

After completing this lesson, you will be able to:

- List and describe the standard reports and their results
- Explain how HIS and HR Reporting Along Personnel Planning Structures function



For more information, see the instructor guide in SAPNet.

Business Example

Your company wants to use the organizational plan for structural reports.

The following data is to be displayed:

- Employee lists per organizational unit
- Cost center assignments for positions
- Job descriptions with task and qualification assignments

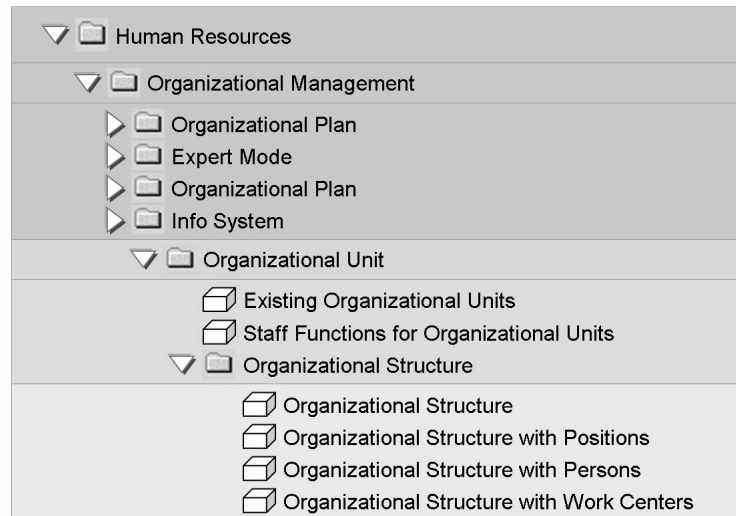


Figure 252: Standard Reports

Many standard reports are available from the Organizational Management menu.

These reports can be executed from shortened selection screens or the user can, in some cases, choose to go to the standard selection screen. Almost all the structural reports contain report RHSTRU00 or a variant of it.

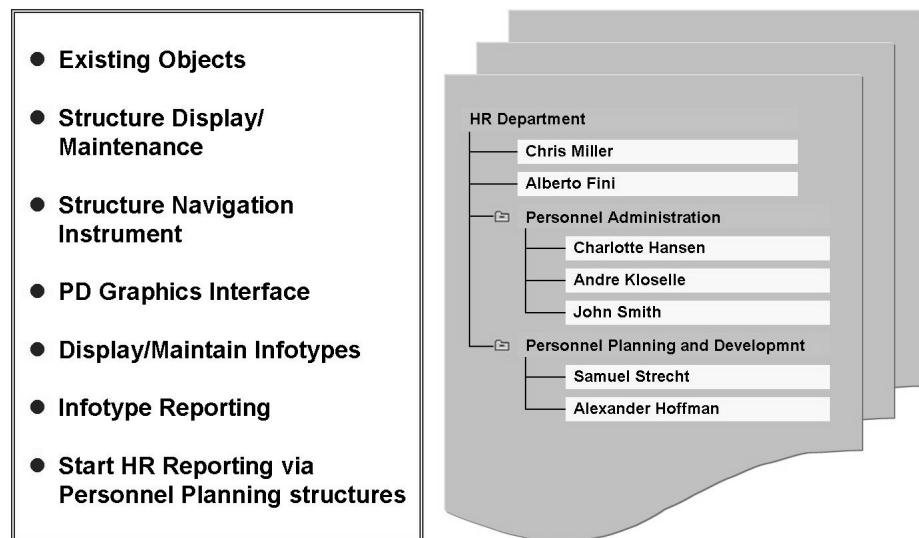


Figure 253: General Reporting

You can access reports that are not based on one specific object type by choosing *Reporting -> General* from the menu.

Existing objects:

Existing Objects: This report provides an overview of all selected objects and presents them in an ABAP List Viewer.

Structure Display / Maintenance:

This report displays a section of the organizational plan according to the initial object and evaluation path entered.

Structure Navigation Instrument:

Lists all existing objects according to type and ID. After you have selected an object, you can go to infotype maintenance.

Structural Graphics Interface:

See next slide

Structure Display / Maintenance (RHSTRU00):

Displays overview of all existing infotypes and their statuses for one or more objects within a plan version.

Evaluate infotypes:

Is used to evaluate infotypes. It can be executed structurally or sequentially. The report can also be used for infotypes that you have created yourself.



The PD Graphics Interface is a tool for displaying and editing in Organizational Management. It allows you to display your plan and move or edit individual objects within your structure.

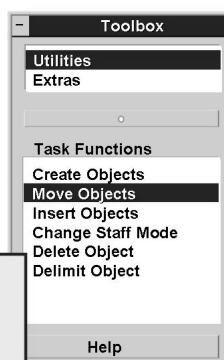
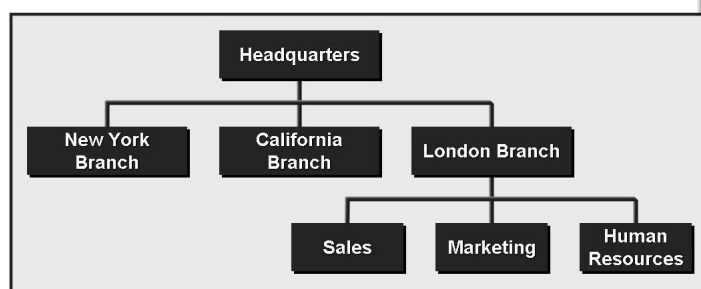


Figure 254: Structural Graphics Interface

The Structural Graphics Interface enables you to depict your structure graphically. You can perform numerous maintenance functions via the toolbox.

Object shapes, colors, and sizes can all be customized by the user and default values set for all users in the IMG. You can also customize the toolbox yourself in the IMG.

You can print out the data displayed on the graphical interface using a PostScript printer or make the data available for processing in other programs using the Computer Graphics Metafile (CGM) format.

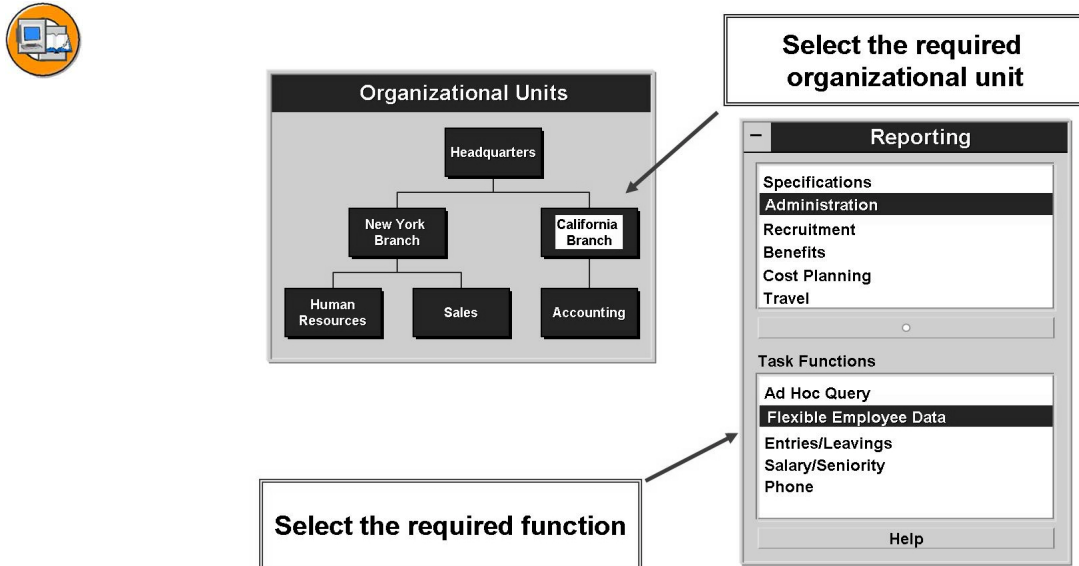


Figure 255: HIS

The HIS (Human Resource Information System) uses similar functionality as the Structural Graphics interface.

Instead of providing a toolbox, it offers a list of reports from different HR contexts.

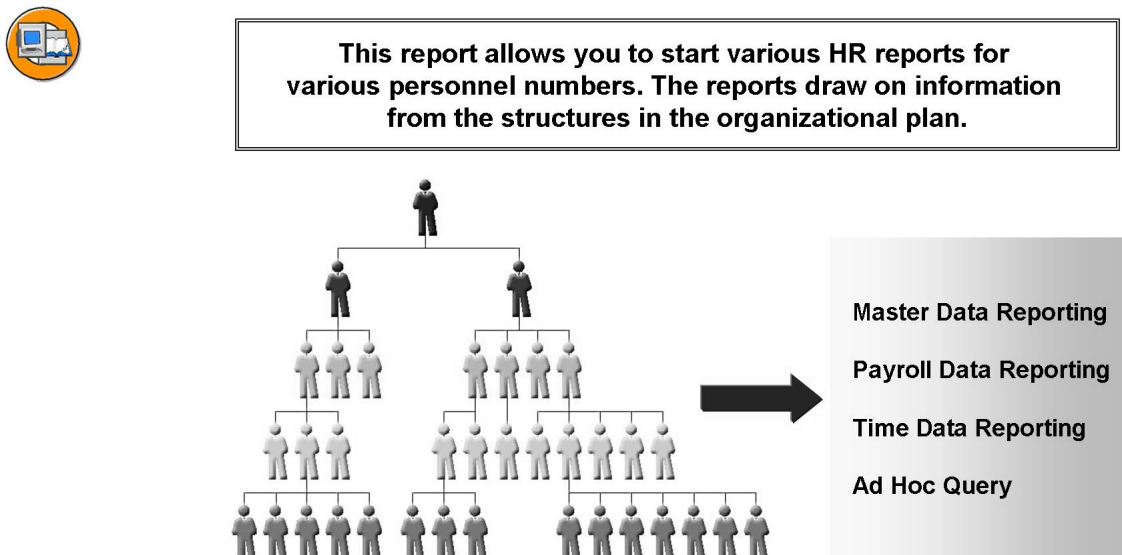


Figure 256: Using Organizational Structures for HR Reporting

This program scans the Organizational Management database and gathers personnel numbers provided that objects of type P are contained in the selected structure. The output sequence depends on the selection options you specify. The master data reporting variant specified under PA Reporting (such as RPLICO10) is then started for these personnel numbers.

You can start reports for HR master data for a set of personnel numbers, sorted in the order defined by an organizational structure (for example, the organizational structure).



Data from the organizational plan can be exported to other software applications.

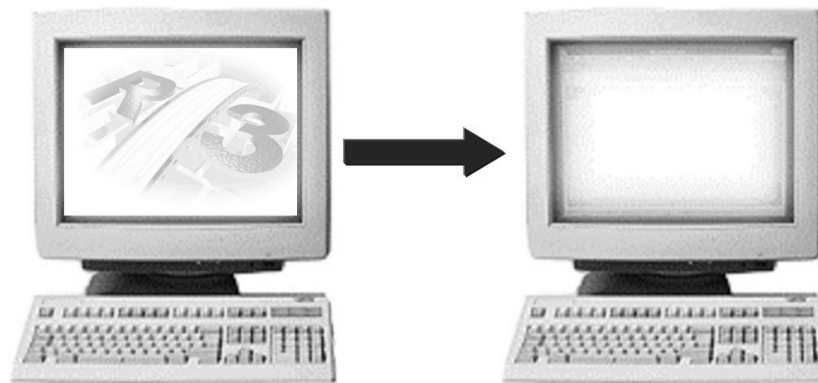


Figure 257: Exporting to Other Applications

Organizational Management data can be sent to outside software applications, for example, for the production of organizational charts.

A standard interface exists for this purpose. The interface is designed, however, for exporting data only. You cannot use this interface to import data into Organizational Management.



Exercise 27: Standard Reports (optional)

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Use the SAP standard reports to evaluate your organizational plan.

Business Example

Your company wants to report on data contained in Organizational Management. Data is to be reported on along your organizational structure.

Task 1:

Reporting on an organizational plan using SAP standard reports.

1. Identify persons in your organizational structure.
2. Display all existing jobs.
3. Identify and display tasks assigned to your positions.
4. Report on vacant positions in your organizational structure.

Task 2:

Reporting on data for your organizational units via *General Reports*.

1. Search for existing organizational units within *System Implementations / Teams*.
2. Display the organizational plan for ## Human Resources as a graphic.
3. Run HR report RPLIC010 for employees within your organizational structure.
4. Check the structure of System Implementations / Teams. What happens if you do not enter an object ID?

Solution 27: Standard Reports (optional)

Task 1:

Reporting on an organizational plan using SAP standard reports.

1. Identify persons in your organizational structure.
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → Organizational Unit → Organizational Structure → Organizational Structure with Persons.*

Enter the name of your higher-level organizational unit (## Human Resources).

Choose *Execute*.
2. Display all existing jobs.
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → Job → Existing Jobs.*

If you do not enter any object IDs or job descriptions, the system displays all existing jobs.

Execute.
3. Identify and display tasks assigned to your positions.
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → Position → Task Description for Positions.*

Enter the name of your position(s).

Execute
4. Report on vacant positions in your organizational structure.
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → Position → Vacant Positions.*

Enter Organizational Unit as the object type. Select your higher-level organizational unit ## Human Resources and start the report with *Execute*.

Continued on next page

Task 2:

Reporting on data for your organizational units via *General Reports*.

1. Search for existing organizational units within *System Implementations / Teams*.
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → General → Existing Objects.*

Enter object type 99.

Execute
2. Display the organizational plan for ## Human Resources as a graphic.
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → General → PD Graphics Interface.*

Enter ## Human Resources as the root organizational unit. Select a valid evaluation path. Choose *Execute*
3. Run HR report RPLICO10 for employees within your organizational structure.
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → General → HR Master Data → Start HR Reporting via Personnel Planning Structures.*

Enter ## Human Resources as the root organizational unit and use O-S-P or another evaluation path with Person. Enter RPLICO10 in the field for PA Reporting.
4. Check the structure of System Implementations / Teams. What happens if you do not enter an object ID?
 - a) *In the SAP Easy Access menu, choose Human Resources → Organizational Management → Info System → General → Structure Display/Maintenance.*

Object type:	99
Object ID	System Implementations / Teams
Evaluation path:	Z_99-S.

If you do not enter the object ID, the report evaluates all objects of object type 99 that exist in the client.



Lesson Summary

You should now be able to:

- List and describe the standard reports and their results
- Explain how HIS and HR Reporting Along Personnel Planning Structures function



Unit Summary

You should now be able to:

- Explain what parameters to set to call structural reports
- Explain the connection between structural reporting and evaluation paths
- Explain and set up structure conditions
- List and describe the standard reports and their results
- Explain how HIS and HR Reporting Along Personnel Planning Structures function



Test Your Knowledge

1. What is the difference between structural and sequential reporting?

2. On which logical database is reporting in Organizational Management based?

3. Can standard reporting tools in Organizational Management be used to suppress the display/output of objects in an evaluation path that do not fulfill the defined requirements?

4. Is it possible to use a standard report to access other logical HR databases using the data from this logical database?

5. On which standard reports are the majority of reports in Organizational Management based?

6. Is the HIS reliant on an Organizational Management?



Answers

1. What is the difference between structural and sequential reporting?

Answer: Structural reporting uses evaluation paths to identify data. Sequential reporting uses object IDs or names.

2. On which logical database is reporting in Organizational Management based?

Answer: PCH

3. Can standard reporting tools in Organizational Management be used to suppress the display/output of objects in an evaluation path that do not fulfill the defined requirements?

Answer: Yes, it is possible to do this using structure conditions.

4. Is it possible to use a standard report to access other logical HR databases using the data from this logical database?

Answer: Yes, using report RHPNPSUP, which uses any evaluation path to select personnel numbers. It then uses any report based on the logical database PNP to read and display data.

5. On which standard reports are the majority of reports in Organizational Management based?

Answer: RHSTRU00

6. Is the HIS reliant on an Organizational Management?

Answer: Yes, because it calls data from Organizational Management when structures are selected. It needs to do this in order for any data records to be selected.



Course Summary

You should now be able to:

- Explain the Payroll process
- List the details of organization management

Appendix 1

Payroll Prerequisites



	Prerequisites	Activities
Master and Time Data	<ul style="list-style-type: none"> • Dialog and time wage types • Work schedules • Infotypes 0000, 0001, 0007, 0008, 0009 and country dependent infotypes (example: tax) • Payroll processes further Infotypes: 0014, 0015, 2001, 2010, 2003, 2005 . . . 	<ul style="list-style-type: none"> • Copy model wage types in the wage type catalog to customer wage types in the customer name range (numbers) • Configure and generate work schedules in Customizing • Enter personal data in the system using personnel actions
Administration	<ul style="list-style-type: none"> • Payroll areas and periods • Payroll control record 	<ul style="list-style-type: none"> • Configure and generate in Customizing • Create in Customizing
Subs. Activities	<ul style="list-style-type: none"> • Bank details and details of house banks • Cost centers • Employee remuneration statements • . . . 	<ul style="list-style-type: none"> • Mostly configured using FI • Mostly configured using FI, combine with organizational units • Standard form provided • . . .

Figure 258: Checklist of Payroll Prerequisites

Before employee data can be entered and processed in the system, some necessary prerequisites must be set up first. SAP provides numerous sample entries that you can modify to meet the requirements of your enterprise.

The above list gives an overview of the most important elements.

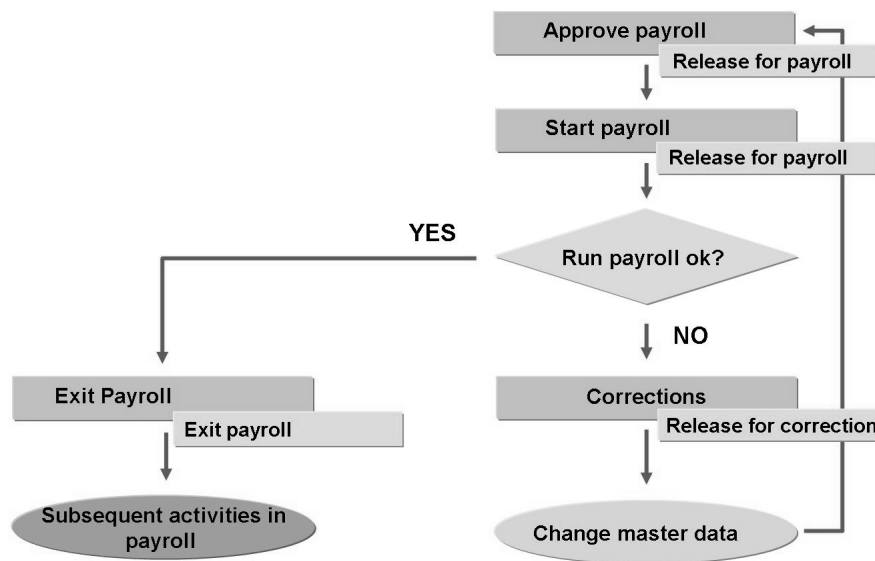


Figure 259: Overview of Payroll Process

During the payroll run, master data and time data changes that affect the payroll past and payroll present are not permitted. The payroll program imports the master- and time data infotypes. If changes are made during the payroll run, the accuracy of the payroll results cannot be guaranteed. It also means that you must not run the payroll during master data maintenance. This is controlled by the payroll control record.

You can check the payroll control record by choosing *Human Resources -> Payroll -> International -> Tools -> Control Record*. You can set the status of the payroll control record using the functions in the menu.

The relationship between the menu and payroll control record is as follows:

Function in menu	Status of payroll control record
Release payroll	Release for payroll
Start payroll	The payroll program is started and the status of the payroll control record remains "released for payroll."
Check result	Check payroll results
Corrections	Release for correction
Exit payroll	Exit payroll

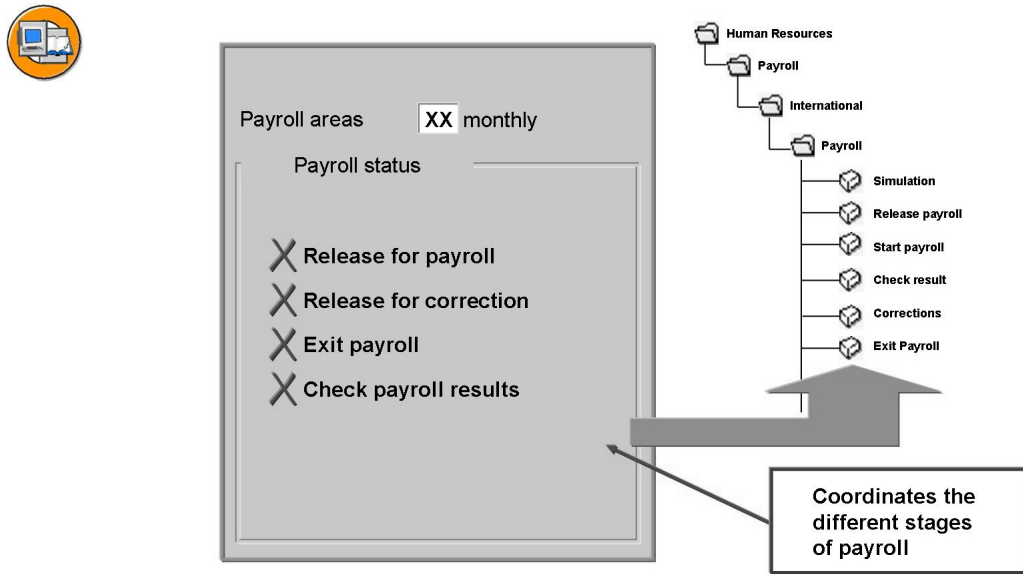


Figure 260: Payroll Control Record: Status

You must create a control record in Customizing for each payroll area before it can be used.

The **personnel control record** performs the following functions in payroll:

Defines the payroll past for retroactive payroll

Locks master data and time data during the payroll run to prevent changes from being made. This lock is set for past payrolls and for the current one. Changes affecting future payroll runs are still possible

Defines the earliest possible retroactive accounting date for each payroll area

You find the control record in the payroll menu for your country under *Tools > Control Record*. You can also use the payroll menu for your country to control the different stages of payroll.



Figure 261: Payroll Control Record: Periods

You must pay particular attention when creating the payroll control record in your live system. The payroll period used to create the payroll control records must be 1 period before the period in which you want to go live.

Example: You want to use the SAP Payroll system to go live in period 05, 2001. You must enter period 04, 2001 in the payroll control record.



Figure 262: Employee Payroll Status (Set by the System)

Each employee has an individual payroll status. The necessary data is stored in the *Payroll Status* infotype (0003). This infotype is created automatically during the hiring process. The individual payroll periods are maintained automatically. You will rarely need to make changes to master data in this infotype. Occasionally, however, you may need to enter employee-specific information relating to Payroll or Time Management. It is therefore possible to change a few particular fields in the *Payroll Status* infotype manually.

The payroll driver enters the end date of the last completed payroll period in the *Accounted to* field.

If master data is changed, the system enters the appropriate date in the *Earliest MD change* field. This date is deleted once the payroll process has been completed.

The payroll driver flags the *Payroll Correction* field if a personnel number has been rejected, or you have entered data during the correction phase of the payroll run. The employee is entered in the correction run using this indicator. Once the payroll process has been successfully executed, this indicator is removed. If changes are made in Customizing, the *Payroll Correction* indicator is not set.

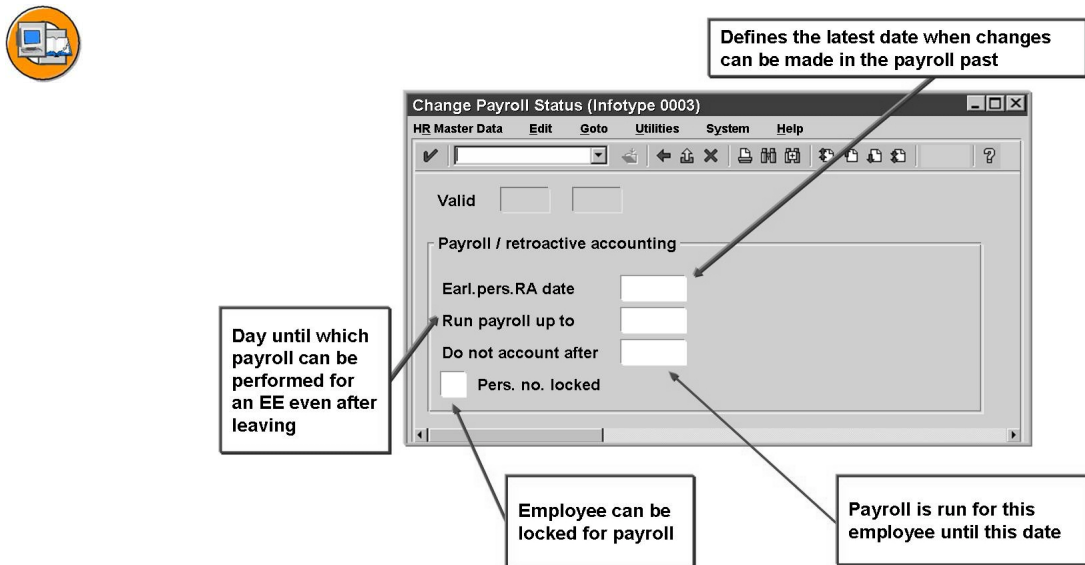


Figure 263: EE Payroll Status (Information Changed Manually)

Earliest personal retroactive accounting date: This field is only used if you want to set a retroactive accounting limit for an employee that is different from the date set in the payroll area.

Do not account after: You can enter a date after which payroll will no longer be performed for an employee. This date must not lie within an active period.

Run payroll to: If an employee has left the company and continues to be paid after the leaving date, this date is stored in this field. If you are dealing with payments in the payroll past, you do not have to enter a date in this field. This is because such payments are triggered automatically during retroactive accounting.

Personnel number locked: If this field is flagged, an employee can be locked for payroll. This personnel number will not be selected for payroll.

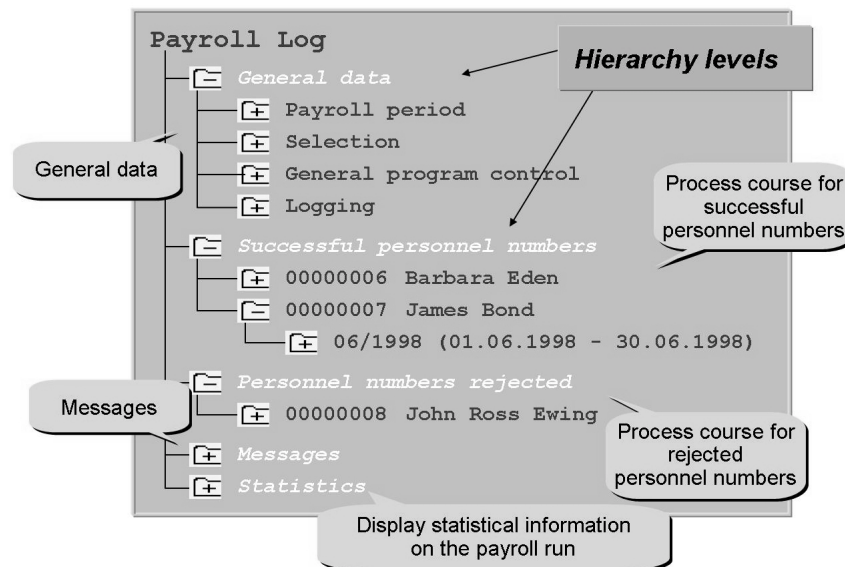


Figure 264: The Payroll Log

The report tree provides information on the payroll run (general data, messages, and statistics) as well as details on the processing steps for the personnel numbers selected.

The log tree has five fixed hierarchy levels. Each fixed hierarchy level contains variable hierarchy levels derived from the schema.

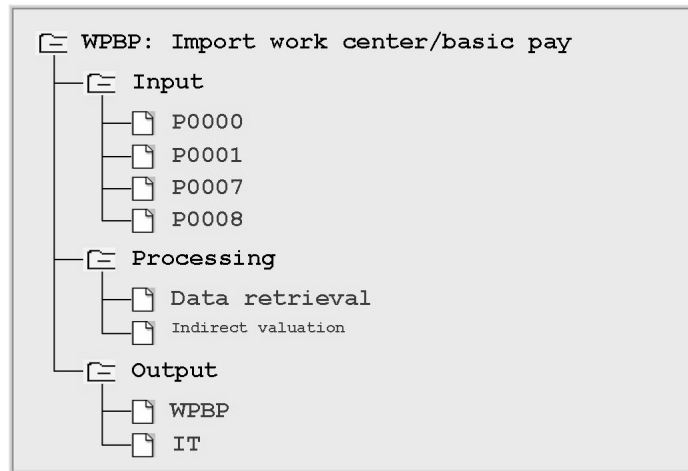


Figure 265: Variable Hierarchy Levels

Variable hierarchy levels are used to structure data from the payroll run.

Variable hierarchy levels are identified by the **BLOCK** function at the start (BEG) and end (END) of the schema.

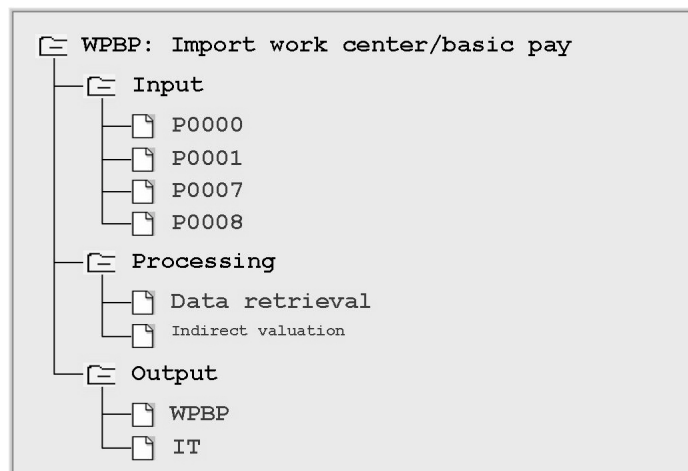


Figure 266: Detail Display of a Function

The detail display for a function enables you to view input data, processing steps, and output data in the log.



WPBP: Import work center/basic pay

Input

P0000

Type	Start	End	Action	Reason
	01.06.1998	30.06.1998	01	21

P0001

Infotype	Start	End
0001	01.06.1998	30.06.1998

P0007

P0008

Processing

Data retrieval

Indirect valuation

Output

WPBP

IT

- "Expand" displays detailed information
- "Compress" displays an overview
- Change table display
 - Normal (important fields)
 - All (all fields)

Figure 267: Navigating in the List

You can save your personal settings for the log tree and the list as a variant.

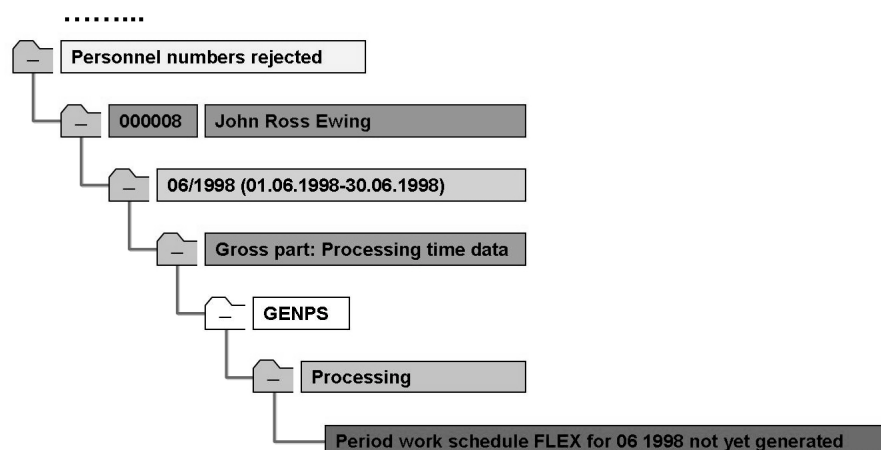


Figure 268: Messages and Error Messages

If an error occurs when a personnel number is processed, the log is expanded at the appropriate place and an error message is displayed.

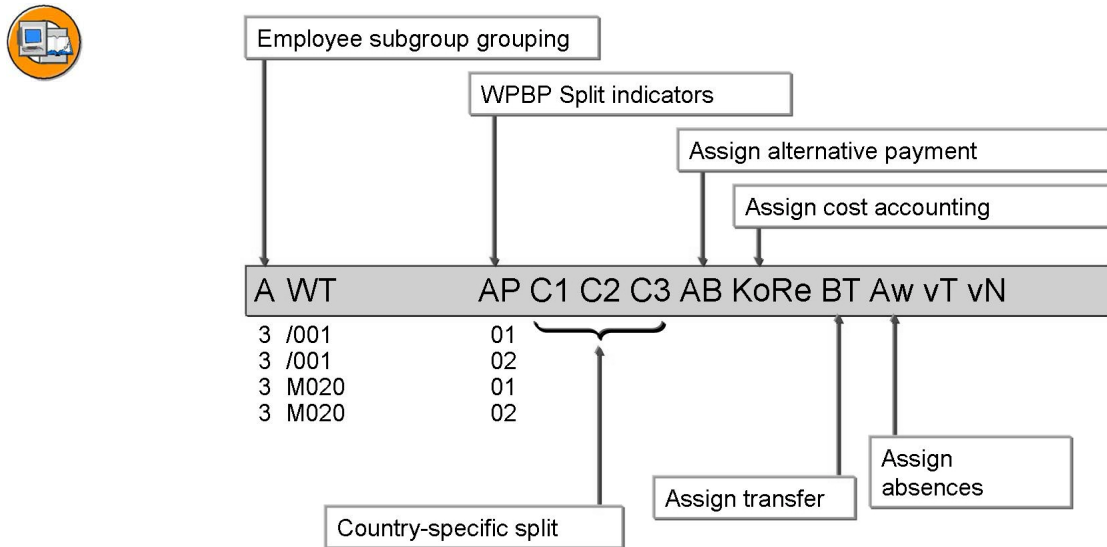


Figure 269: Key to the Results Table

The country-specific splits indicate partial periods for social security and taxation purposes.

The object ID for a variable assignment (**vT**) and its number (**vN**) can be set using operation **SETIN**.

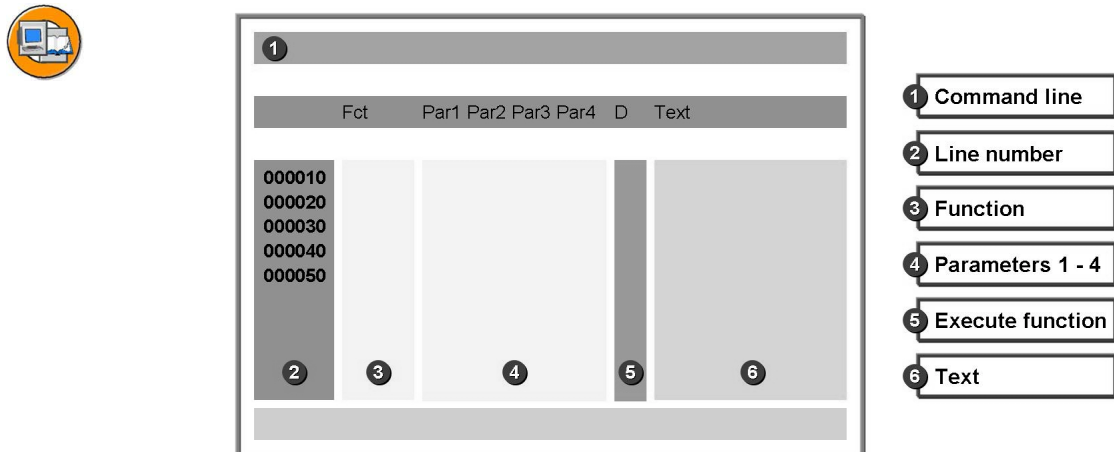


Figure 270: Schema editor

The editor command lines contain commands generally used within the R/3 System

A number	Attach; position at specified line number
CHECK	Syntaxcheck
F schema	Fetch; that is, import a different schema such as F XT00
FIND string	Search for specified string
I	Insert; add a new page
Print	Print schema
R string 1 string 2	Replace; string 1 is replaced by string 2
U	Update; save schema

F1 Help

You can display online documentation with immediate relevance to the part of the system in which you are working, for example, by positioning the cursor on function names or the names of personnel calculation rules, and pressing F1.



R R4	Repeat	Repeat line Repeat line 4x
D DD	Delete	Delete line Delete block (Select first/last lines!)
C CC	Copy	Copy line Copy block (Select first/last lines!)
M MM	Move	Move line Move block (Select first/last lines!)
A B	After Before	Positioning for C/M line commands

Figure 271: Line Commands in the Schema Editor

Further line commands:

RESET Deletes the line command.

* The selected line is displayed as the first line of the editor.

I Inserts a blank line directly under the line selected.

In Inserts the number of lines specified (n) directly under the line selected.

X Copies data stored in X buffer under the line.

XX...XX Marks the block of lines selected in the X buffer. Enter XX in the first and last line of the block that you want to include in the buffer.



Payroll rule xxxx ES grouping 1 W/TType ****

1	VarKey	NL	T	Operations
000010				
000020				
000030				
000040				
000050				

2 3 4 5 6

1 Command line
2 Line number
3 Variable key
4 Next line
5 Rule type
6 Operations

Figure 272: Rule editor

A personnel calculation rule can consist of several subareas, each of which is characterized by an employee subgroup grouping for personnel calculation rules, a wage type, and a time type. An index function provides an overview, and enables you to switch from one section to another as well as delete individual subareas.

The rule line contains **6 operations**. The **continuation indicator** enables you to extend the processing rule to several lines if required.

The **rule type** determines the type of processing that is performed. **D** is used for decision operations, **P** to call up subroutines, and **Z** to access a different personnel calculation rule.

The **variable key** enables you to build up a **decision tree**, that can then be used to control wage type processing from an organizational point of view, for example.

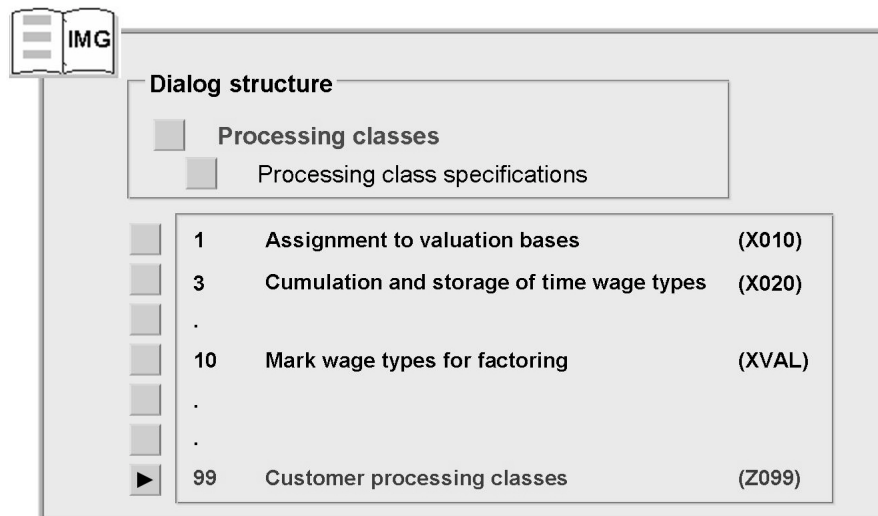


Figure 273: Maintain Processing Classes and Specifications

In the standard system, the processing classes are stored in the areas from 01 to 89. Processing classes 90 to 99 are for customer-specific entries. You can create your own processing classes and specifications, or create new specifications for existing processing classes.

SAP recommends that you only create new processing classes in the aforementioned customer areas. This is because the entries that are maintained in the standard system could be overwritten when the release is next updated.

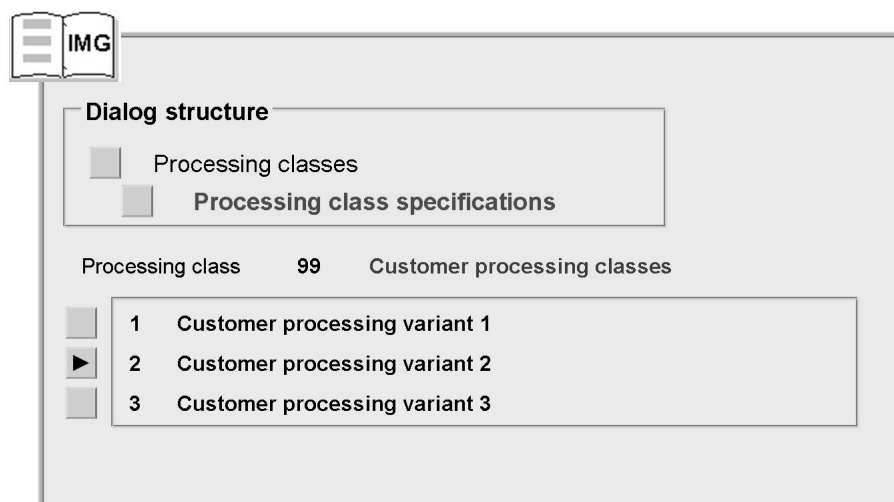


Figure 274: Maintain Processing Class Specifications

To create a new entry, you can either flag an existing entry, copy and rename that entry, or choose "New entries".

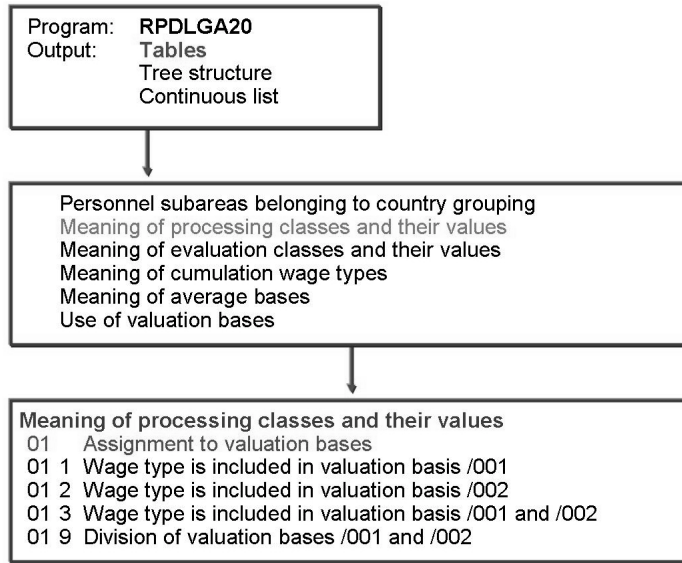


Figure 275: Using Wage Types in Payroll (1)

This program enables you to obtain an overview of how all your primary and secondary wage types are coded. This can be useful for comparing the coding of different wage types or for gaining an overview of the status of your wage types in the system.

To run the program, you must enter the country grouping and specify a validity period. By entering certain wage types, you can limit the evaluation to the wage types that you require. The results can be displayed in tables, in a tree structure, or in a continuous list.

If you flag the optional field **Display logical views**, you can link from results that are displayed in tables or in a tree structure to the logical views used to maintain processing classes, evaluation classes and cumulation wage types. If a logical view is maintained in the Implementation Guide (IMG), the program also enables you to access and execute the relevant IMG activity directly.

To display the results in a table (see diagram above), you can navigate to the relevant table entry by double-clicking the left-hand button of your mouse. To navigate in the tree structure, you can press the left-hand mouse button once, or expand and collapse the relevant folder icon.

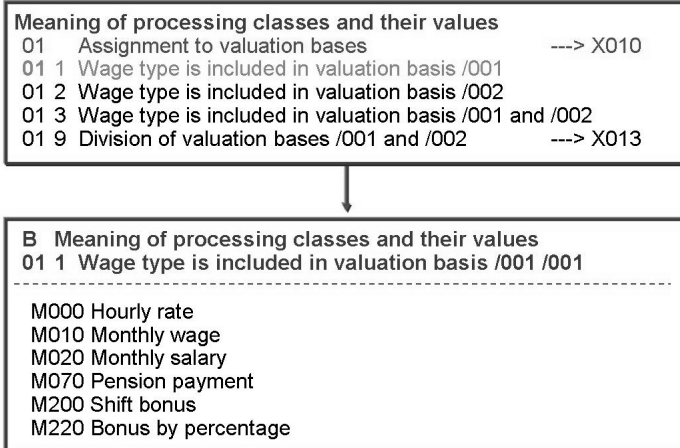


Figure 276: Using Wage Types in Payroll (2)

Generating the tree structure and the continuous list can be time-consuming because the system must assign all the data to a particular branch before the tree can be displayed. It is faster to display your results in tables as the system generates the relevant data sequentially as you branch to the next level.

To obtain a where-used list, you should display your results in a tree structure or a continuous list.

If, for example, you simply want to know how individual processing classes are used in wage types, you are recommended to display your results in a table.

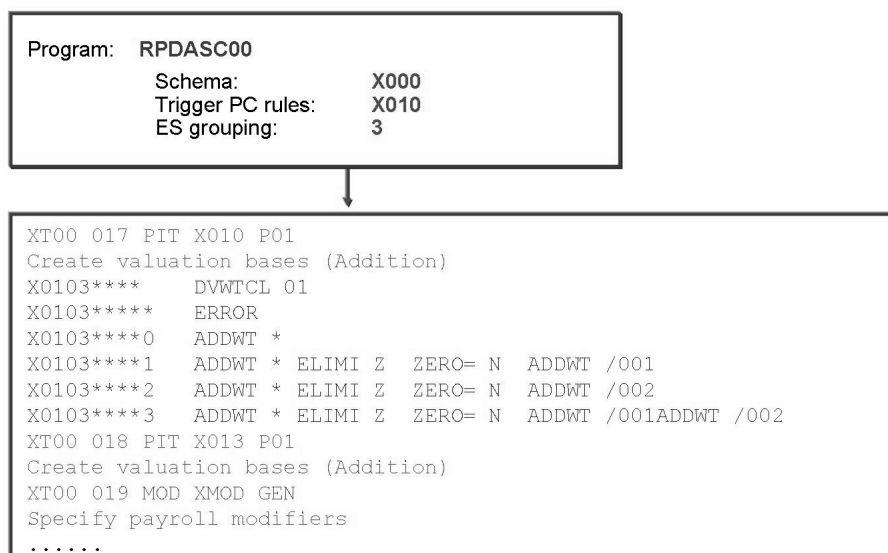


Figure 277: Displaying Schemas and Rules

Report RPDASC00 enables you to create lists of schemas and subschemas. You can also explode personnel calculation rules (according to the employee subgroup grouping for personnel calculation rules) in the list. This is particularly useful for documenting and gaining an overview of personnel calculation rules you have changed.



Also available as a modal window

Object name	Description of logical information object
ADDNA *	Collect number and amount in
...	
ADDWT	Add wage type to subsequent wage type
...	

Figure 278: Using HR Documentation Maintenance

You can use the PDSY transaction (HR Documentation Maintenance) to access the documentation of all schemas, functions, personnel calculation rules, and operations. If necessary, you can create the documentation for specific clients.

To obtain a list of these objects, enter the appropriate documentation class, and use the possible entries help for the *Object name* field. You can also display this list as an amodal window, for example, to have a list of all operations available when creating personnel calculation rules.

Relevant documentation classes for Payroll:

SCHE - Personnel calculation schemas

CYCL - Personnel calculation rules

FUNC - Functions in payroll

OPEC - Operations in payroll

549X - Features

PRCL - Processing class

PROMO - Process model

When you maintain schemas and personnel calculation rules, context-sensitive HR documentation is displayed when you access the field help (F1).

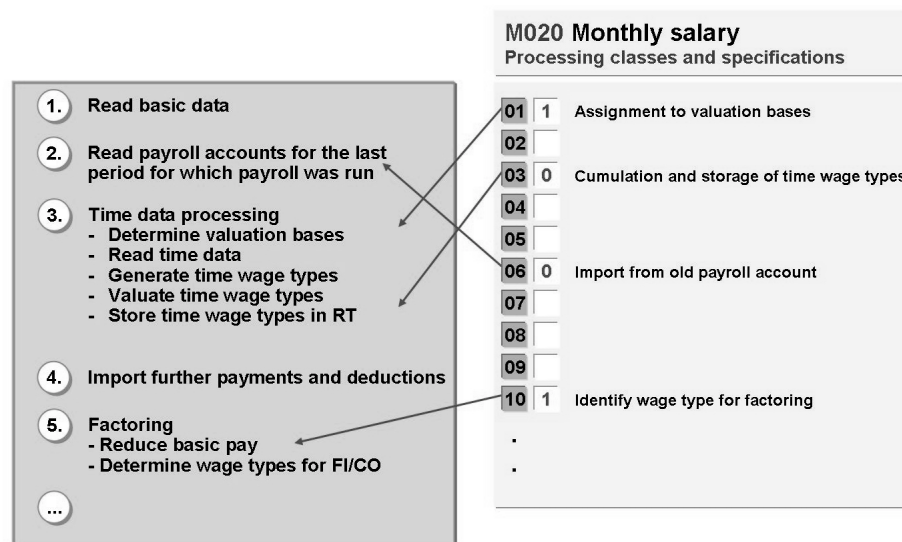


Figure 279: Payroll and Processing Classes

Processing classes control the processing of wage types at various stages of payroll. The personnel calculation rule called in the schema checks the value (specification) set in Customizing, and performs the processing required for the relevant value.

For example, processing class 06 transfers wage types from the results in the imported previous period to the current payroll period. The specification **0** in this class denotes that the wage type is not transferred to the current payroll period.

In total, there are 99 processing classes. The classes 90-99 can be used for customer-specific processing. The processing classes 01-89 belong to SAP, although they are not all used.

A wage type must have a specification in a processing class if the wage type goes through the payroll processing step in which the relevant processing class is queried.



Subschema	Function	Rule	PRCL	Wage types	Notes
XIN0	Initialization of payroll				
XBD0	Edit basic data	WPBP		Basic pay	Infotype 0008
XLR0	Import last payr. result	PORT	X006 06		
XT00	Gross remuneration	PIT	X010 01	/001 - /0nn	Valuation bases
		PIT	X013 01	/001 - /0nn	
		P2010	X930	EE remun.info	Infotype 2010
		PIT	X015		Time WT valuation
			X016 15		Average calculation
		PIT	X020 03		Gross import and RT storage
XAP9	Import further payments/deductions	P0014	X011 47	Recurring payments/ deductions	
		P0015	X011 47	Add.Payments (IT 15)	
XAL9	Factoring and Storage	PIT	XPPF	/801 - /816	Partial period factors
		PIT	XCM0 31	/840	Monthly lump sums for CO
		PIT	XVAL 10		Valuation of remun.elements
		ACTIO	XCH0	/840	Hourly rates for CO
		PIT	X023 20		Gross import and RT storage
XNA9	Net cumulation	PIT	X030 05		Net cumulation
XRR0	Retroactive accounting				
XNN0	Net payments/deductions and bank transfer	P0011	X055	Ext.bank transfers	Infotype 11
			X045 25	Import pymnts/deds to RT	
XEND	Final processing	ADDCU	30	Update cumulation in CRT	

Figure 280: Overview of Schemas and Processing Classes

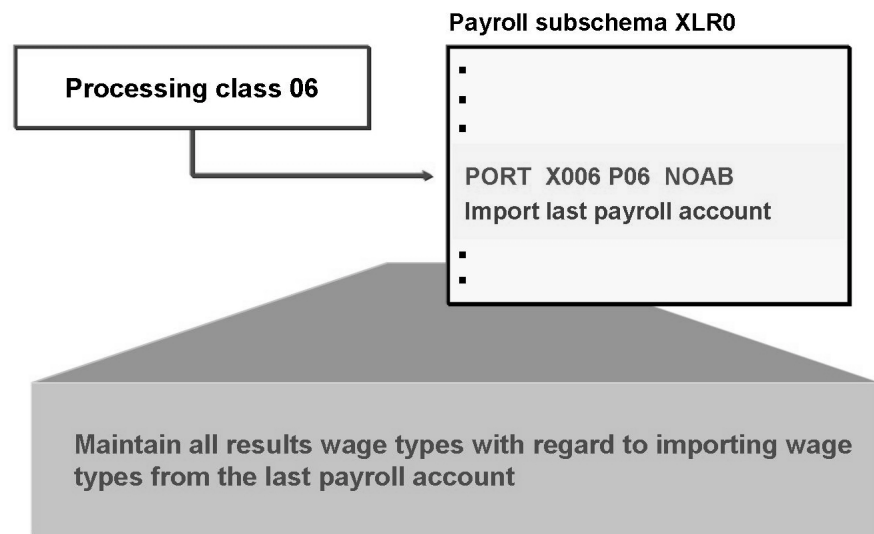


Figure 281: Processing class 06

Wage types from the last payroll result that are relevant to the current payroll run are placed in internal table LRT (Last Result Table) to be used later.

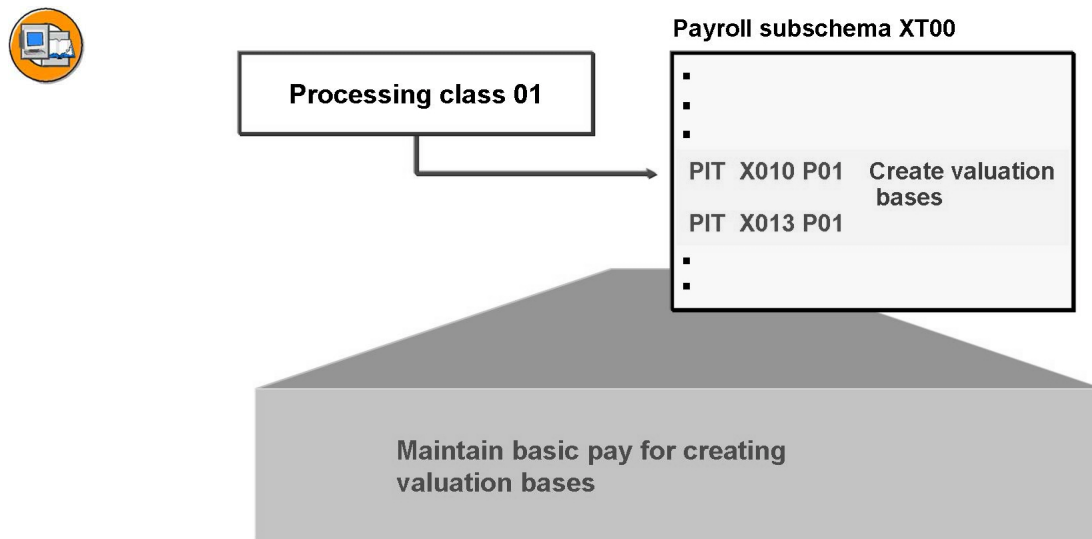


Figure 282: Processing class 01

Use this processing class to code all the wage types that you need for the valuation of other wage types. The valuation bases are stored in secondary wage types /0nn.

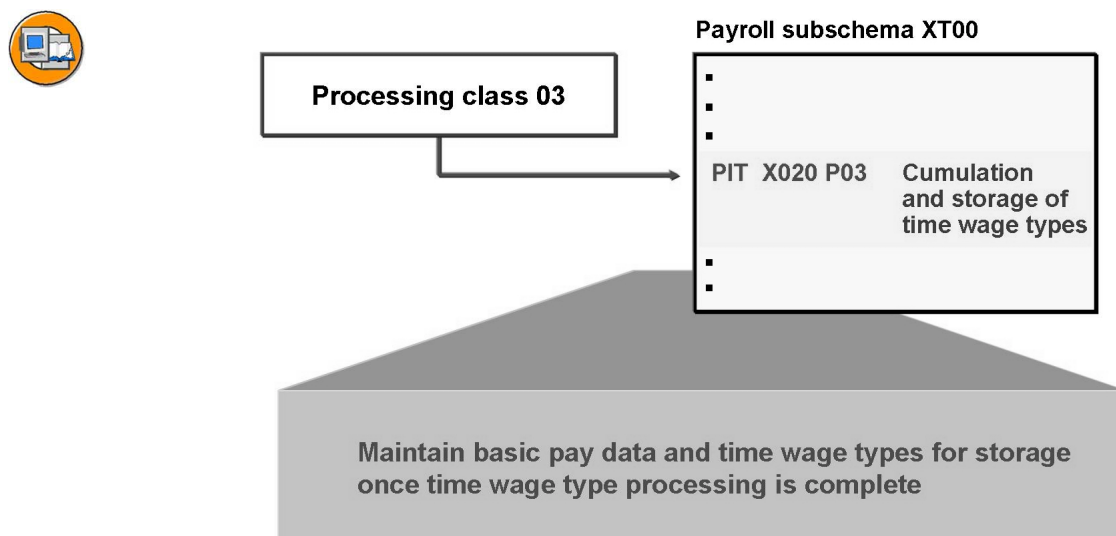


Figure 283: Processing class 03

After valuation, time wage types can be cumulated into gross cumulation wage types and average bases, and stored in the results table.

Wage types from the infotype *Basic Pay* must also be coded in this processing class. They should be passed on once time wage type processing is complete as they are usually required for factoring.

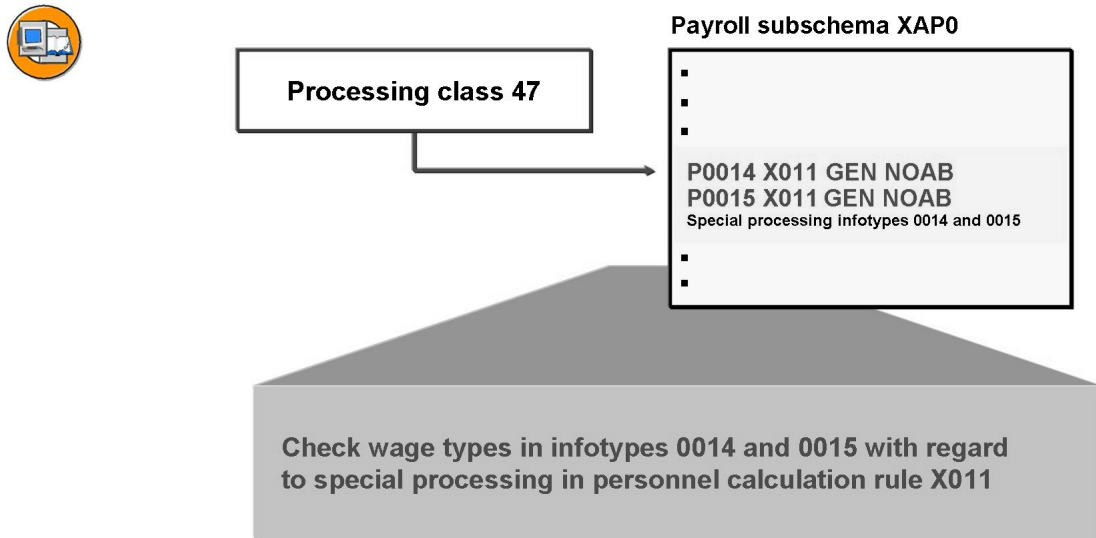


Figure 284: Processing class 47

Under certain circumstances, you may need to effect special processing for certain recurring payments/deductions wage types and additional payments wage types.

Example:

Union dues are calculated in accordance with the amount of gross income.

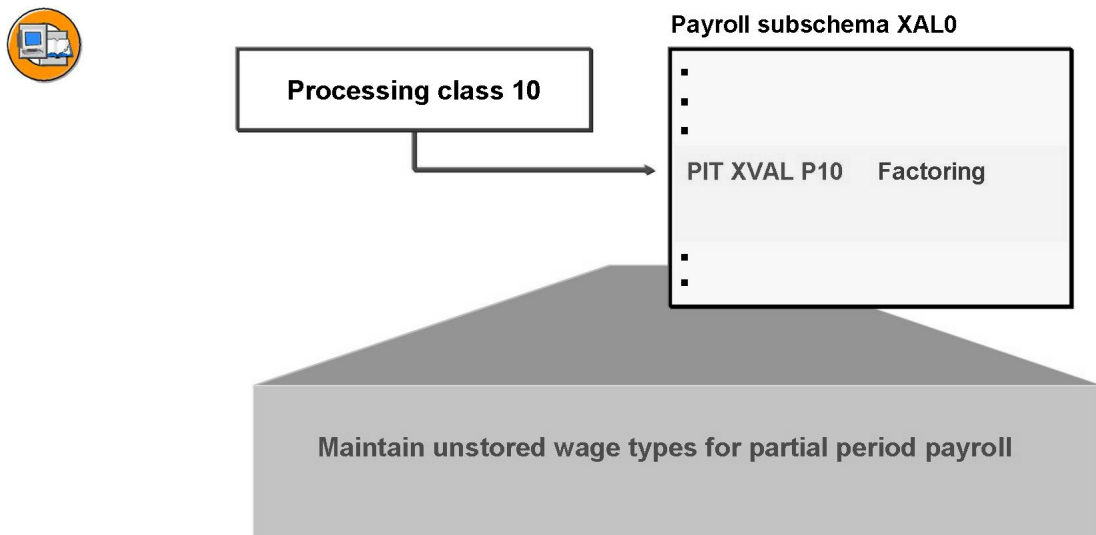


Figure 285: Processing class 10

All of the wage types that are not stored after time wage type processing must be coded for partial period factoring.

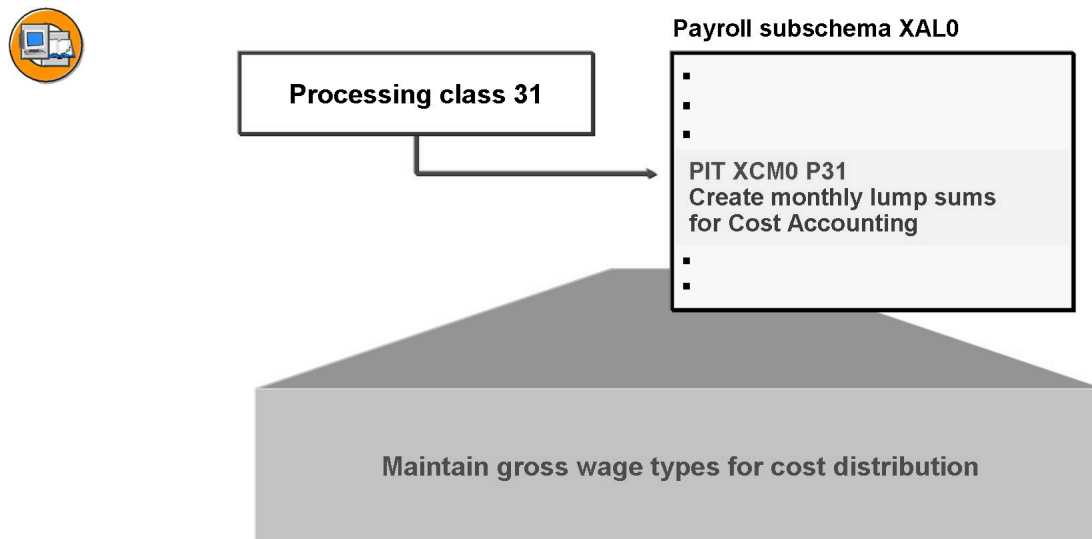


Figure 286: Processing class 31

All the wage types that are not stored after time wage type processing must be encoded with regard to their influence on the calculation of monthly lump sums for Cost Accounting.

From the employee's point of view, paid absences have no effect on his or her basic pay wage types. Cost Accounting, however, makes a distinction between remuneration effected for attendance and remuneration effected for absence. For this reason, cost accounting wage types are created during payroll. This processing class enables you to determine the wage type amounts that are included in the cost accounting wage types.

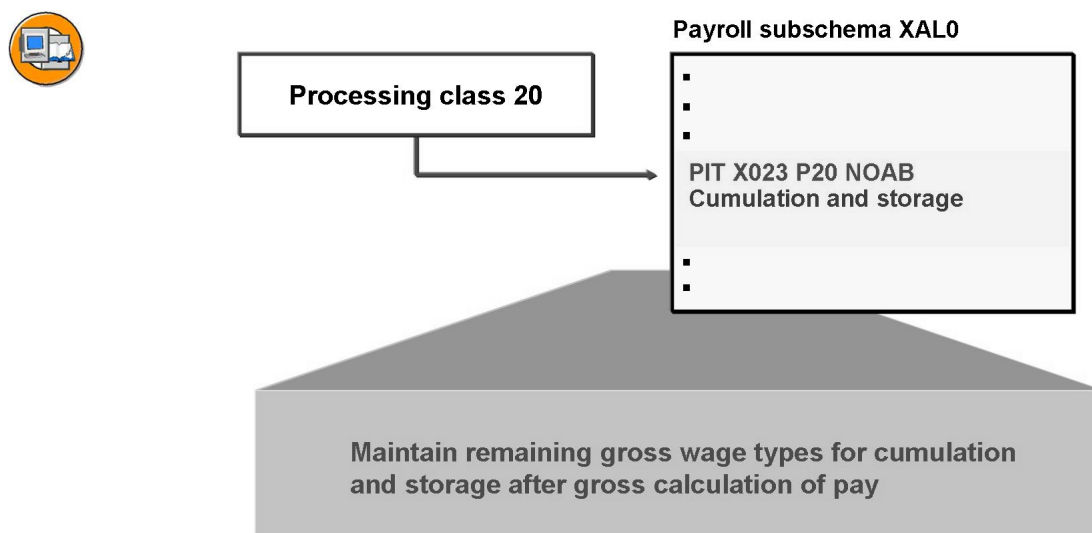


Figure 287: Processing class 20

Processing class 20 enables you to determine if and how wage types are stored in the results table after the gross calculation of pay, and in which cumulation and averages wage types they are cumulated.

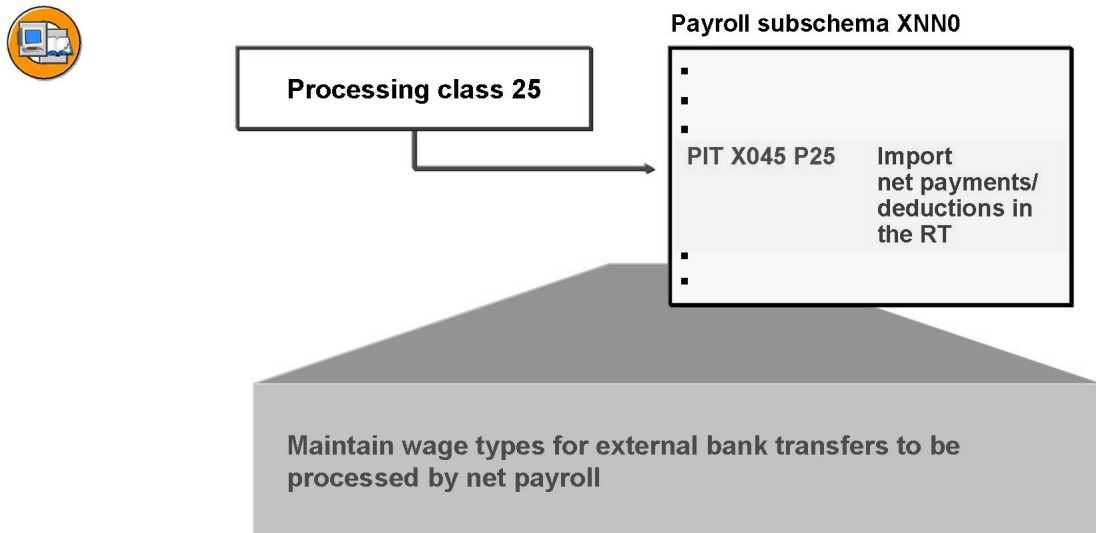


Figure 288: Processing class 25

Processing class 25 determines how to store wage types that are entered through the infotype *External Bank Transfers*. These wage types cannot be cumulated in gross cumulation wage types, as they are processed in the net part of the payroll run.

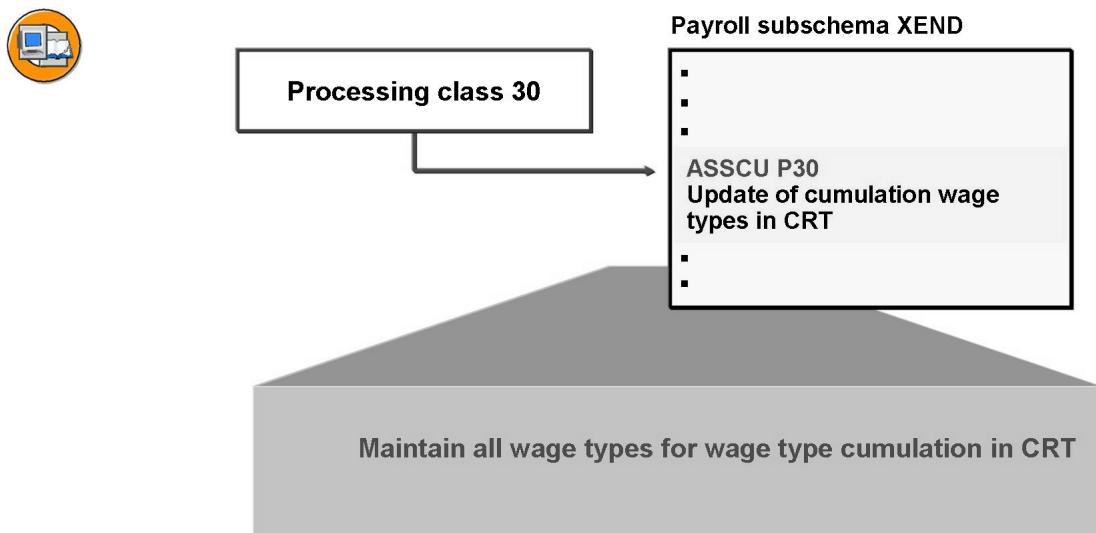


Figure 289: Processing class 30

Wage types can be cumulated for several periods in the Cumulated Results Table. In processing class 30, you code wage types that are to be evaluated as an annual valuation, or that are to be listed on the remuneration statement.

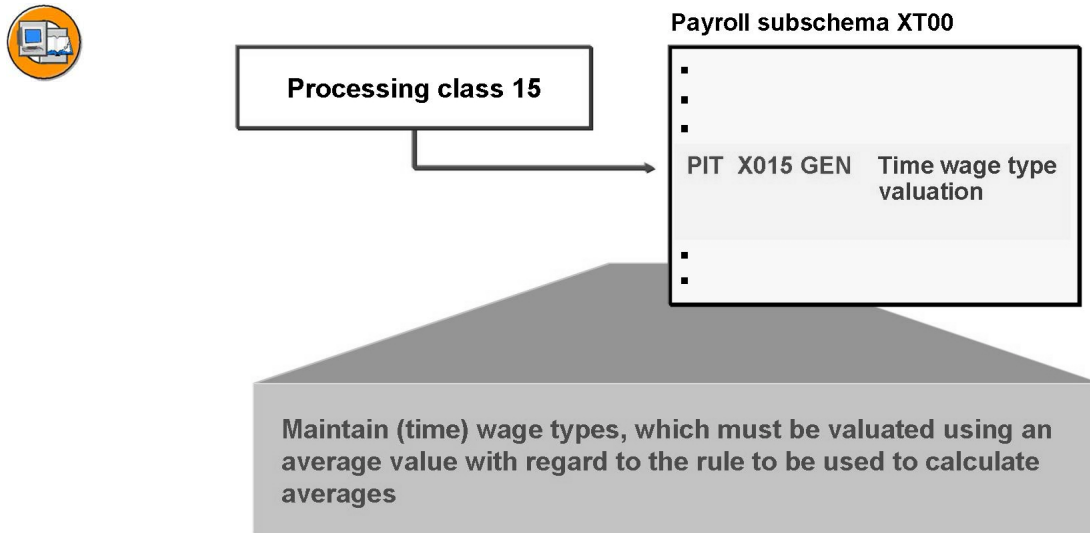


Figure 290: Processing class 15

In this processing class, you code the wage types that must be valued using averages that are based on values from previous periods. The specification of this processing class determines the average calculation rule used by the system.

Use in personnel calculation rules X015 - X018.

Note: It is only necessary to code the wage types in processing class 15 when the average values are calculated in accordance with the **old** average calculation procedure. If you use the **new** average calculation procedure, you assign the primary wage types that should be valued with an average value to an average calculation rule in the view View V_T51AV_P.



WT	MM10	Overtime 25%	Start	End	
Averages					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RTE Rate
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NUM Number
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AMT Amount
100,00	100,00	100,00	100,00	100,00	%
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/201 Average basis 01
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/202 Average basis 02
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/203 Average basis 03
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/204 Average basis 04

Figure 291: Creating Bases for Calculating Average Values (Old)

When creating the bases for calculating average values, you must determine if and how each primary wage type is used to calculate averages.

The various bases for calculating average values created here can be used for diverse valuations when calculating average values in cumulation rules.

In this scenario, basic remuneration for overtime is cumulated in wage type /201, and also in wage type /202.



WT	M400	Vacation bonus
Processing class		
15	Valuation according to principle of averages	
Specification		
1	Valuation of averages over 3 months	

Figure 292: Valuating Averages Using a Primary Wage Type

All primary wage types to be valuated using an average must be maintained in processing class 15. The system queries the specification in personnel calculation rule X016.

In the standard system, wage types are not valuated according to the principle of averages.

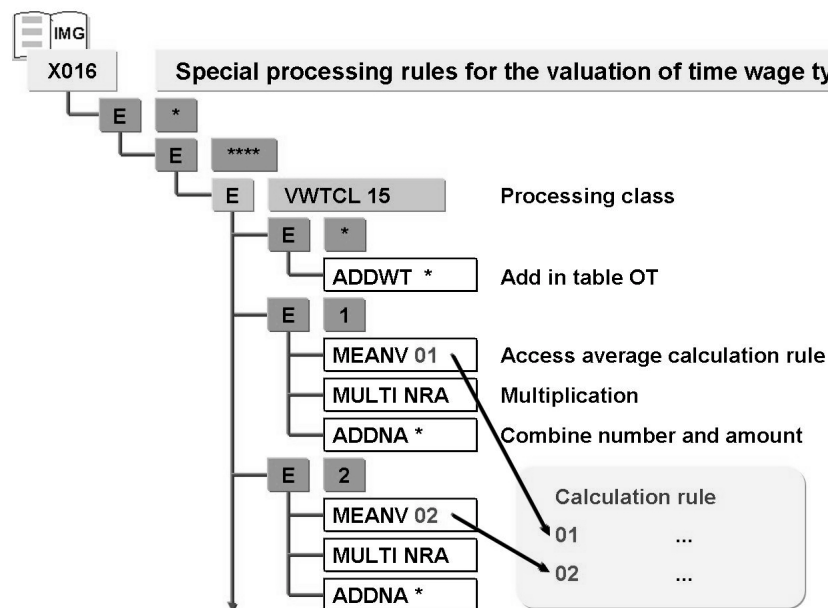


Figure 293: Defining Calculation Rules for Averages

To process averages, it is important that you determine the calculation rule. This occurs in personnel calculation rule X016 where decision operation **VWTCL 15** queries processing class 15. Wage types to be valuated in accordance with the principle of averages have a specification in processing class 15. The system calls the operation **MEANV nn** (where nn stands for the average calculation rule) for every specification you enter.

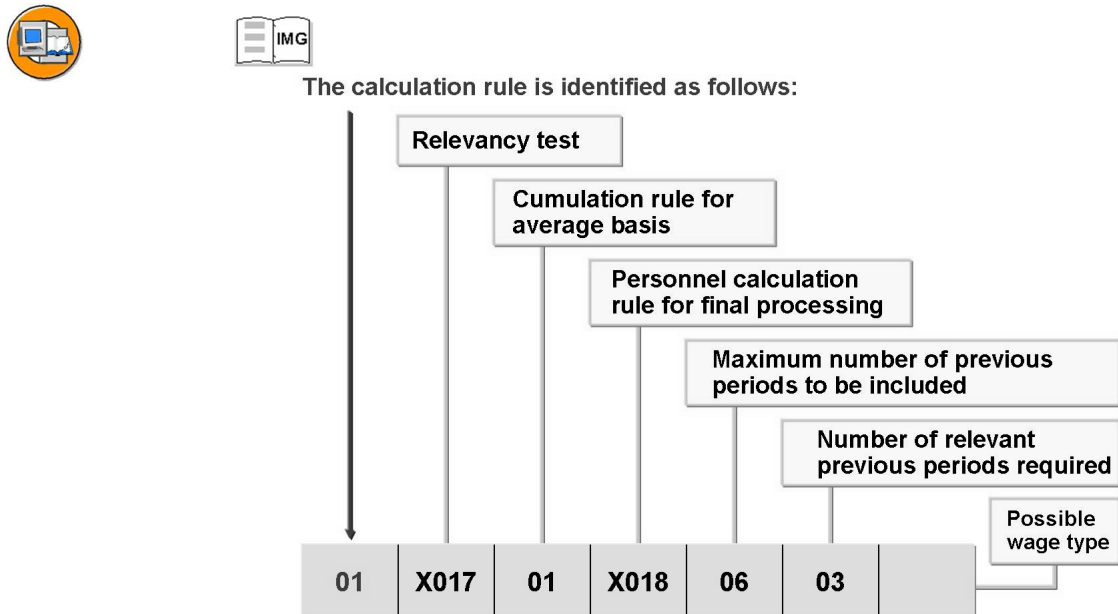


Figure 294: Calculation Rules for Averages

The following values must be entered for each calculation rule:

1. The personnel calculation rule in which your relevancy test is stored.
2. A cumulation rule: You can either create a cumulation rule or use an existing rule.
3. The personnel calculation rule in which your final processing rule is stored; that is, the rule in which the average is actually calculated.
4. The maximum number of periods that can be used to determine the relevant periods.
5. The number of relevant periods used to cumulate the average bases.
6. A wage type that allows exceptions for individual employees (for example, manual changes to the average value or an average value for new employees).



View: Calculation Rules for Averages

Calc.rule	Rel.test	Cumul.	F.process.	Max.no.per	No.rel.per	WT
01	X017	03	X018	3	3	
02	X017	09	X018	6	6	

View: Cumulation Rules for Average Bases

Cumulation	WT	Start	End	CumNUM	CumRTE	CumAMT	Adjust.
03	/201			+		+	
09	/206			+		+	

Figure 295: Creating Cumulation Rules (1)

The *Cumulation* field in the view **Calculation Rules for Averages** references the *Cumulation* field in the view **Cumulation Rules for Average Bases**.

Secondary wage types /201 - /232 can be used for the cumulation rules.



The cumulation rule is identified by:

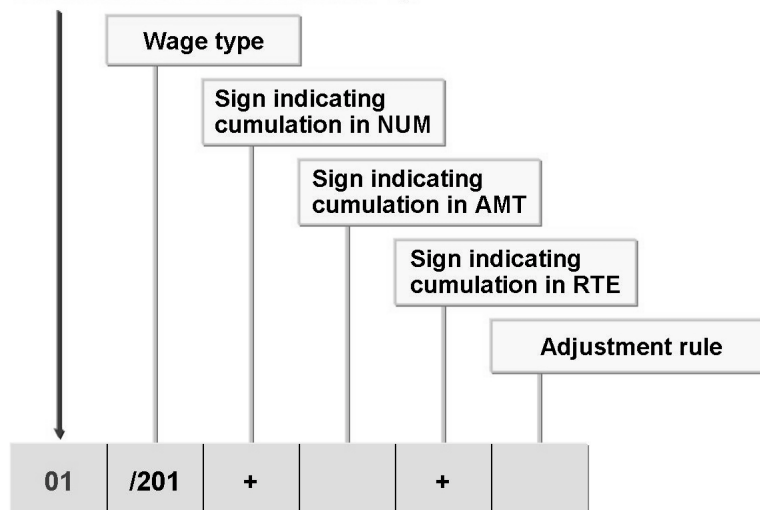


Figure 296: Creating Cumulation Rules (2)

A list is displayed of wage types (/201 - /232) used with the cumulation rules that were entered as average types. The field used for the calculation is flagged accordingly.

+ Cumulation with positive sign

- Cumulation with negative sign

" " No cumulation

To adjust a wage type due to pay increase, the entry in the last field references the modification indicator for the average bases.

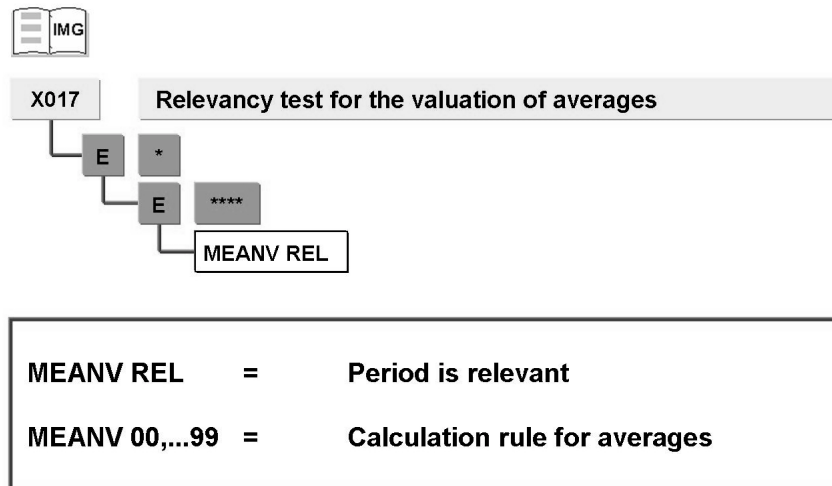


Figure 297: Creating Relevancy Test

This step enables you to determine the periods that are used for averages processing.

As a general rule, periods that occur immediately before the current payroll period are always used for the formation of averages. Sometimes a period cannot be used because, for example, the employee was absent for its duration rendering it unrepresentative for a calculation rule for averages. The system sets the status of each period as being relevant or irrelevant.

Each period is processed as follows:

The system imports the payroll results for the previous period and calls personnel calculation rule X017. In this rule, you can include wage types from the imported payroll result in the relevancy test. You do this with operations AMT, RTE and NUM (for example, AMT=O....). You use MEANV REL to explain the period relevant to the average calculation. If this is not the case, it is irrelevant and not involved in the subsequent cumulation of bases of calculating average values.

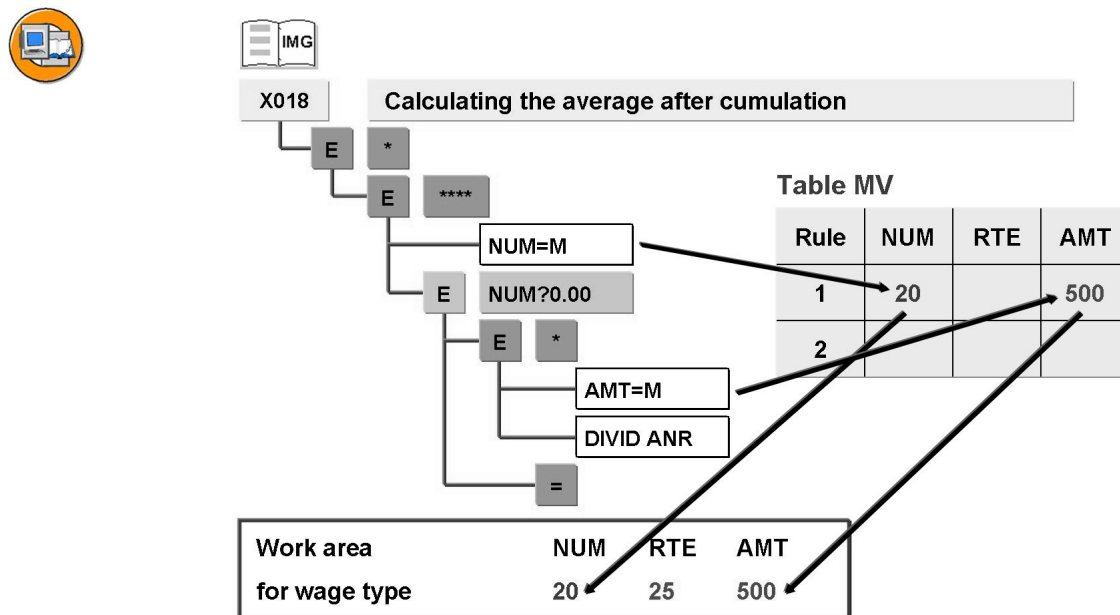


Figure 298: Creating a Final Processing Rule

An average calculation must result in the *Rate* (RTE) field containing a valuation basis. The formula used to calculate this value is included in personnel calculation rule X018.

The internal table MV contains the cumulations for averages.

Standard rule X018 uses the formula amount/number to calculate hourly rates.

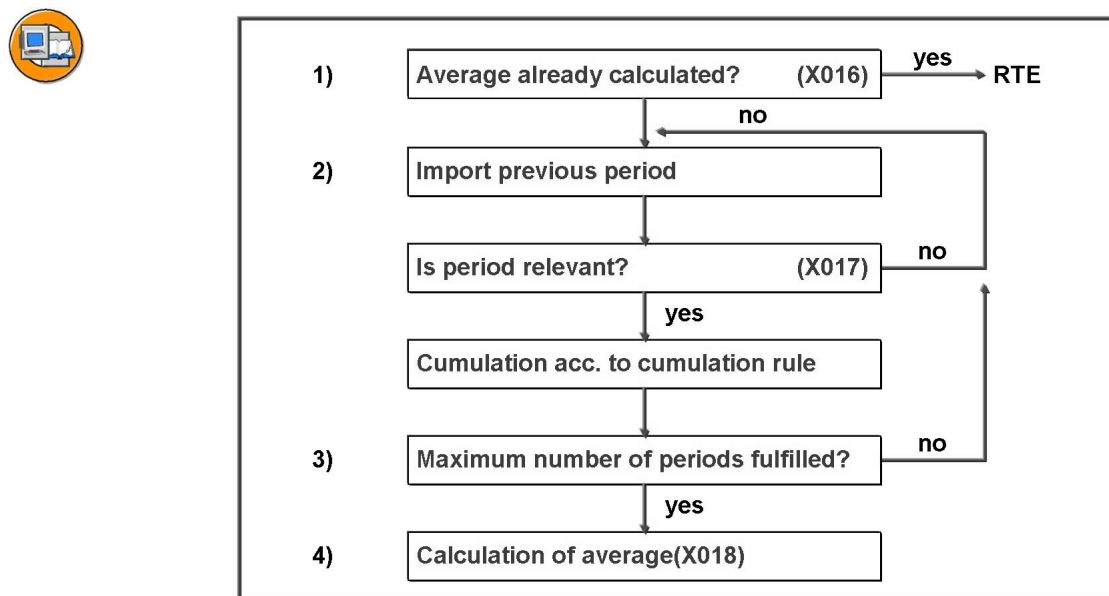


Figure 299: Technical Sequence for Processing Averages

1. Has an average value already been calculated for the employee in the current payroll period and for the relevant calculation rule for averages? If so, the average value is stored in the RTE field.
2. Every previous period that is to be processed and starts with the current period -1 is imported. The system then performs a relevancy test in the personal calculation rule X017. If the period is relevant, cumulation takes place in accordance with a cumulation rule that determines which average bases are cumulated and how.
3. The system determines whether the maximum number of periods to be used for the calculation rule for averages has been reached.
4. Final processing takes place in personnel calculation rule X018. It consists of calculating the average value and making the appropriate entry in the RTE field of the wage type requiring valuation.



View: Cumulation Rules for Average Bases							
Cumulation	WT	Start	End	CumNUM	CumRTE	CumAMT	Adjust.
03	/201			+		+	02
09	/206			+		+	03

View: Adjustment Rules for Average Bases						
Adjustment	Ind:NUM	Ind:RTE	Ind:AMT	VBasis	WT	No.period
02			4	01		3
03			1			3

Figure 300: Creating Adjustment Rules (1)

The view **Adjustment Rules for Average Bases** contains rules that can be used to increase average values if pay increases. For each field (NUM, RTE and AMT) of the average calculation basis, you can specify by which adjustment factor the relevant field should be multiplied.

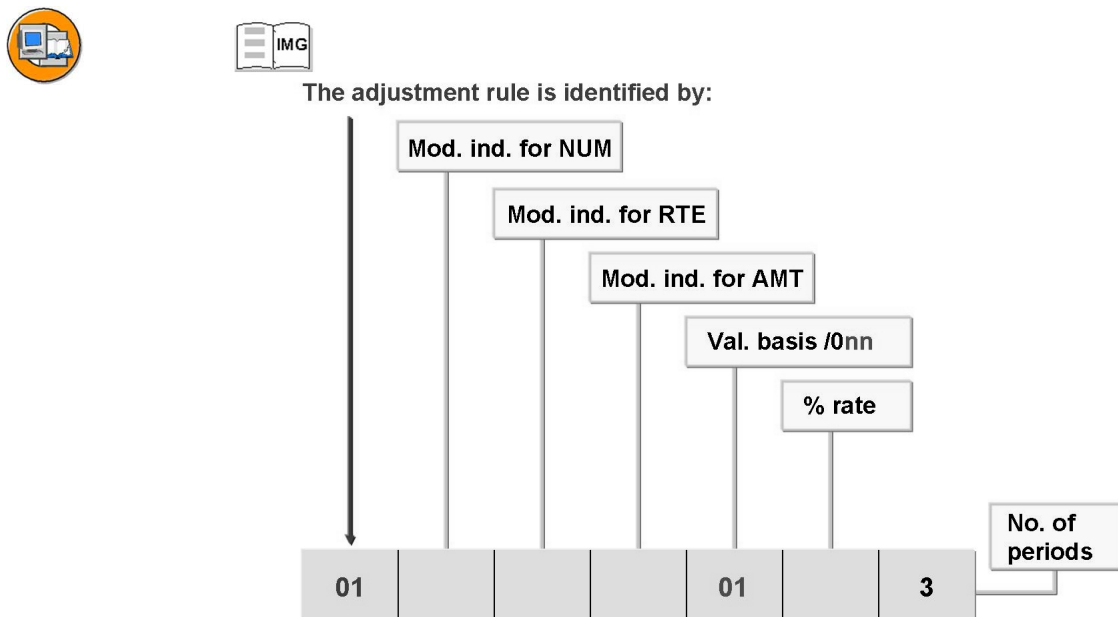


Figure 301: Creating Adjustment Rules (2)

To adjust a wage type due to pay increase, the entry in the last field references the modification indicator for the average bases.



Modification indicators

	NUM	RTE	AMT
		2	2
		3	3
		4	4
1	1	1	1

Figure 302: Creating Adjustment Rules (3)

Increase factor 2 is calculated as follows:

Basic standard pay for the employee in the relevant period.

Basic standard pay for the employee in the respective previous period.

This factor not only takes account of changes to the pay scale, but also of reassignments to different wage groups.

Increase factor **3** is calculated as follows:

Basic standard pay for the employee in the relevant period.

Basic standard pay for the employee in the respective previous period.

The difference to increase factor 2 is that basic standard pay in the period in question is determined by the pay scale features of the previous period. Reassignments to different wage groups are not taken into account.

In increase factor **4**, an identifier for a valuation basis must also be specified in the field NN. The increase factor is then calculated as follows:

RTE field of /0nn in the relevant period

RTE field of /0nn from the respective previous period.

In this case, pay scale and individual bonuses are taken into consideration.

Increase factor **1** is determined using the table **Adjust Average Bases According to Pay Scale**.



View: Adjustment Rules for Average Bases						
Adjustment	Ind:NUM	Ind:RTE	IndAMT	VBasis	WT	No.period
02			4	01		3
09	1					3

View: Adjust Average Bases to Pay Scale					
PStype	PSarea	GrpPSRule	Start	Percent1	Percent2
01	01	1	01.04.1998	105,000	95,000
01	01	2	01.04.1998	106,000	0,000
01	01	3	01.04.1998	106,000	0,000

Figure 303: Creating Adjustment Rules (4)

Modification indicator **1** references the table **Adjust Average Bases to Pay Scale**.

Percentage 1 specifies a standard pay increase if working time does not change. A reduction in working time with full pay is specified in percentage 2.

If the NUM or AMT fields specify modification indicator 1, the increase factor corresponds to percentage 1.

If modification indicator 1 is entered in the RTE field, the increase factor is calculated as follows:

Percentage 1 is divided by percentage 2, if percentage 2 \neq 0, or
percentage 1, if percentage 2 = 0.

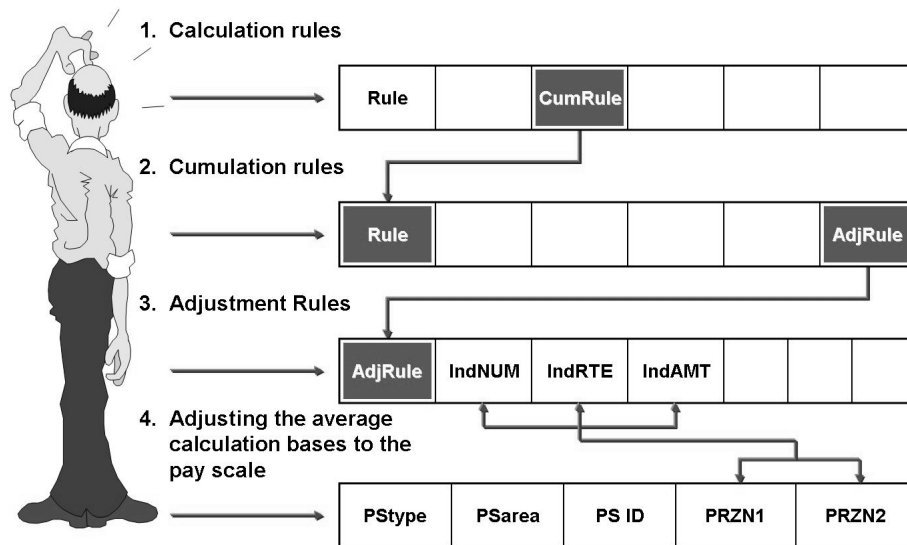


Figure 304: Views Used to Calculate Averages

If you flag the relevant rule in the view **Calculation Rules for Averages**, you can use the navigation field to access subsequent rules.

If you calculate averages without taking individual pay increases into account, you only require entries in the first two views.

If you must take individual increases in an employee's basic pay into account, an entry is required in view 3.

If you have to take pay scale increases in basic pay into account, additional entries are required in view 4.

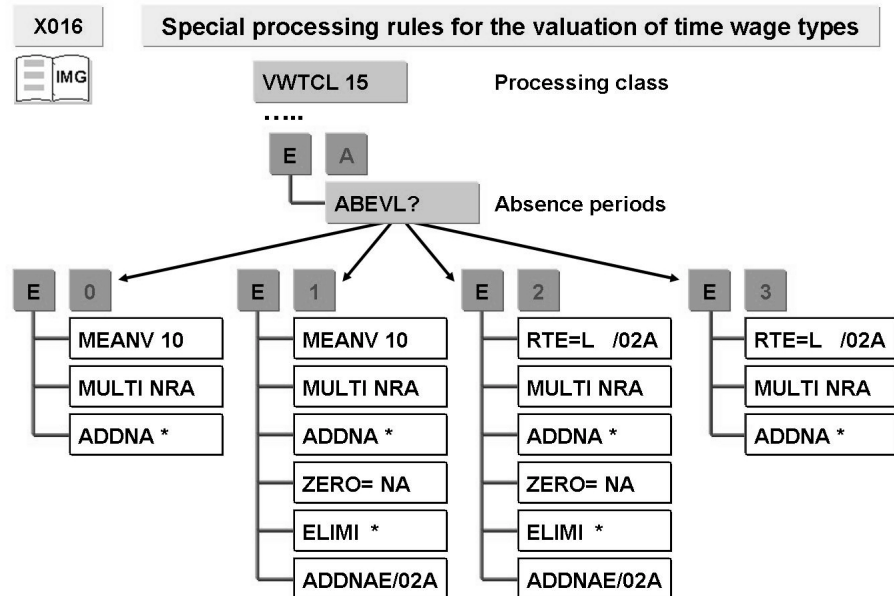


Figure 305: Frozen Averages

If you assign specification A to a wage type in processing class 15, personnel calculation rule X016 calls decision operation ABEVL?. This operation determines whether an employee's absence is longer than the current period and returns the values 0, 1, 2 and 3.

0 The absence starts and ends in the current payroll period; normal calculation of averages.

1 The absence starts in the current period and ends in the subsequent period:

The average value is calculated in the current period and frozen in the subsequent period. Operation ADDNAE/02A stores the amount specified in the rate (RTE) field in wage type /02A, and saves it to internal table RT. Storing the rate, that is, the average value, in this wage type freezes it and enables valuation of the same absence in the subsequent period.

2 The absence starts in the previous period, continues over the current period, and finishes in the subsequent period: in this case, the frozen average value of the previous period is taken first, and the absence is, therefore, valued in the current period. The average value is then frozen again for valuation in the subsequent period.

3 The absence starts in the previous period and finishes in the current period: in this case, the absence is valued with the frozen average value of the previous period.

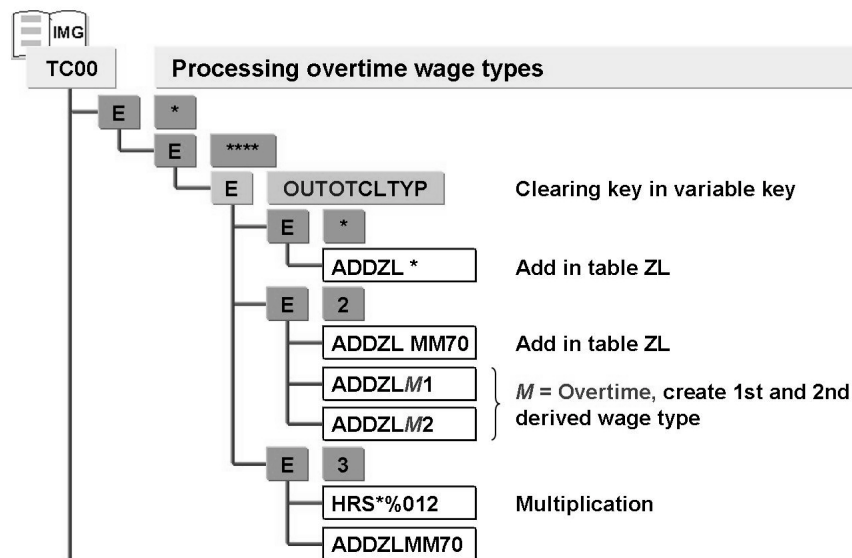


Figure 306: Calculating Overtime

The value of the overtime compensation type in the infotype *Overtime* (2005) determines how employees are compensated for overtime. The standard specifications are as follows:

- 1: Remuneration
- 2: Basic pay for free time, bonuses paid
- 3: Time off

In the specification for compensation, operation **HRS** multiplies the number of hours field by the percentage specified for the current, first and second derived wage type in the table *Wage Type Valuation*.

Processing class 17 determines overtime compensation for wage types included in payroll through cluster B2.

Personnel calculation rule TC10 references processing class 17 of the overtime wage types and the overtime compensation type given to the overtime quota. This occurs to decide whether the wage type, or derived wage types, should be stored in table ZL (remuneration of overtime and bonuses), or whether time-off credit should be set up (compensation by time in lieu).

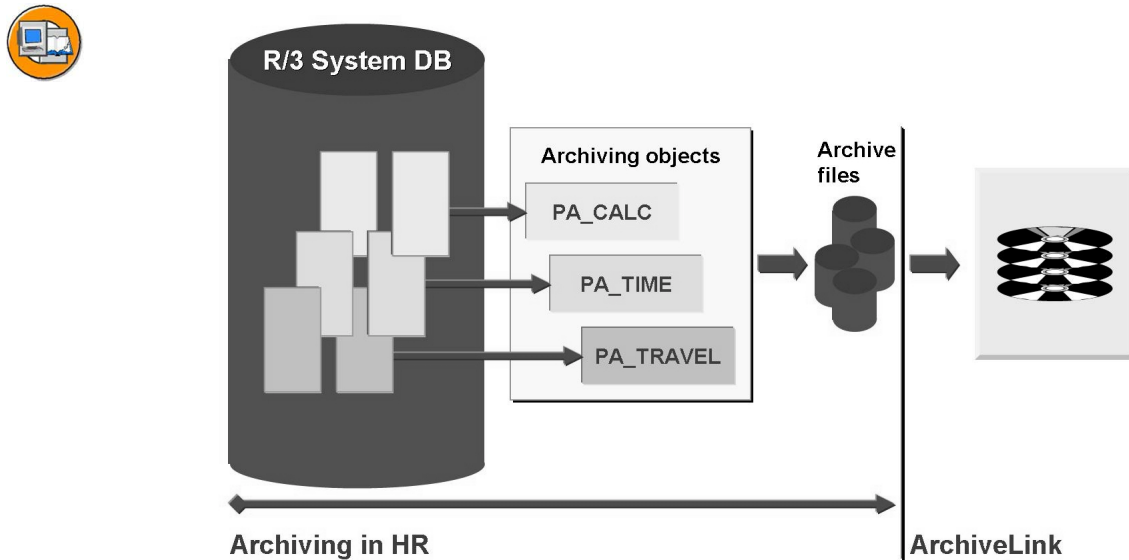


Figure 307: Overview of Archiving in HR

Data to be archived in the R/3 database can only be archived using archiving objects that are available in the system, which describe the structure and composition of the data. For payroll results, this object is PA_CALC.

Essentially, the archiving procedure can be broken down into two steps:

Creating archiving files: during archiving, the system writes the archiving data sequentially to a newly created file. These archive files can, for example, be transferred to an archiving system using an ArchiveLink.

Starting the deletion program: on the basis of the archive files created, the deletion program removes data from the database.

The archived data can be displayed, without being restored, using the report **H99_DISPLAY_PAYRESULT**.

If you want to archive data, you must first create an archiving group.



- Country for which the payroll results were created
- Selection of archiving objects
- Archiving date
- Retroactive accounting limit
- Country-specific parameters for payroll
- Selected personnel numbers, for example
 - All employees who have left the company
 - All employees in one personnel area

Figure 308: Contents of an Archiving Group

The archiving group is a special structure for archiving. It allows you to summarize archiving objects from Payroll, Time Management and Travel Management, if these components are integrated.

To create an archiving group, you have to specify its characteristics. The system helps you to complete this process by leading you through it on a step-by-step basis.

The **Archiving date** is the date up until which payroll data, based on personnel numbers, is to be archived. The **retroactive accounting limit** is the date that determines how far back the assigned personnel numbers can be accounted.

To create an archiving group, you can take one of the following approaches:

- a) You specify the archiving date. The system proposes a retroactive accounting limit that comes as soon as possible after the archiving date, and ensures that country-specific requirements are taken into consideration.
- b) You specify a retroactive accounting limit. The system proposes an archiving date immediately before the specified retroactive accounting limit, and ensures that country-specific requirements are taken into consideration.

At the end of this step, each archiving group receives a number that is supplied by the number range. You must therefore create a number range for the number range object **HRARCHIVE**.



- **1. Phase 1: Creating an Archiving Group**
- **2. Phase 2: Assigning Personnel Numbers**
- **3. Phase 3: HR Preparation for Archiving**
 - Test Run
 - Release
 - Execute
 - Reverse
 - Exit
- **4. Phase 4: Archiving**
 - Execute
 - Exit

Figure 309: The Archiving Process

When you create an archiving group, the system checks your entries to ensure that there are no inconsistencies as a result of missing data.

You then assign the relevant personnel numbers to an archiving group.

Although it is not compulsory, you are nonetheless advised to carry out a test run before releasing the archiving. The release status locks access to the payroll data for the assigned personnel numbers. It is subsequently not possible to carry out retroactive payroll for these personnel numbers, as they are locked for the payroll driver.

After carrying out HR preparation for archiving, the payroll data is no longer accessible for payroll, although it is still available in the database. Consequently, retroactive payroll runs are no longer possible for archived periods. It is, however, possible to undo the HR preparation for archiving, either for all the personnel numbers in an archiving group, or for individual personnel numbers. You can carry out necessary retroactive accounting runs.

In the final step, the archive administration transaction (SARA) is called. Here, you create an archiving job. This means the archive data, which is assigned to an archiving group, is transferred by archiving object to an archive file and then deleted from the database.

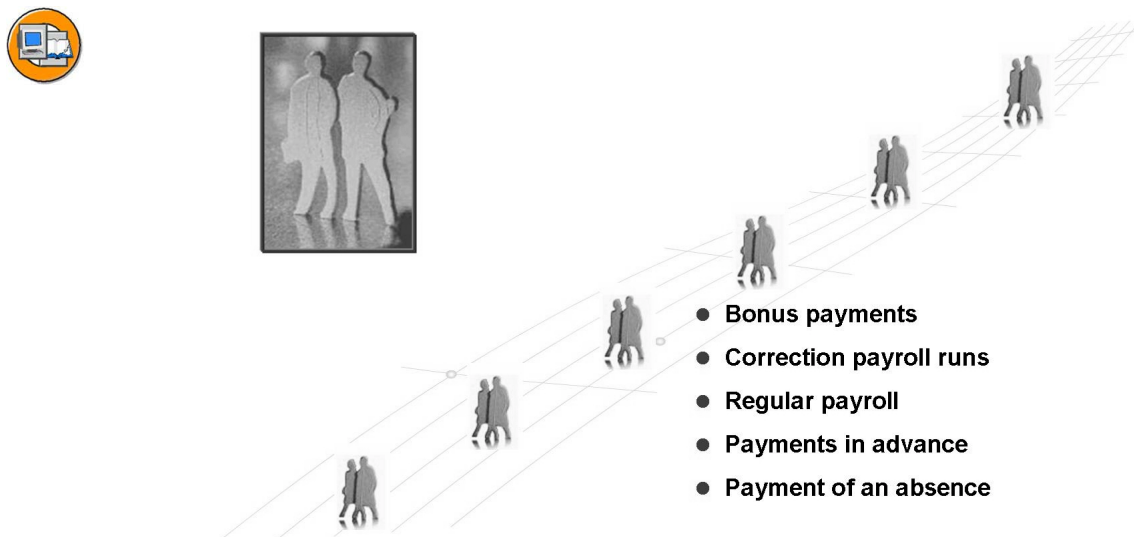


Figure 310: Off-cycle batch processing

The Off-Cycle Payroll function enables you to carry out various payroll activities that are not covered by the regular payroll run. The payroll control record is not taken into consideration in off-cycle payroll. The settings in Customizing for Payroll determine the off-cycle payroll types that you can use.

If an employee is to receive a **bonus payment**, you perform off-cycle payroll and process the payment for the employee.

If you want to process an employee's **absence payment** in future payroll periods, you run payroll for the period during which the absence occurs, using a daily settlement.

If an employee's master or time data has changed you can trigger retroactive accounting and perform a **correction run** and a payment.

If an employee was hired shortly before the payroll date and his or her papers could not be processed in time, you can run **regular payroll**, even if this is no longer possible for the payroll area, or you can run payroll for this employee before running payroll for the whole payroll area the next time.

If an employee leaves the enterprise, or is absent for several periods and wants to receive the money owed to him immediately, you can carry out payroll in advance for several periods with a **payment in advance**. The personnel number is only selected for the regular payroll run when the periods for which payroll has already been run have passed.

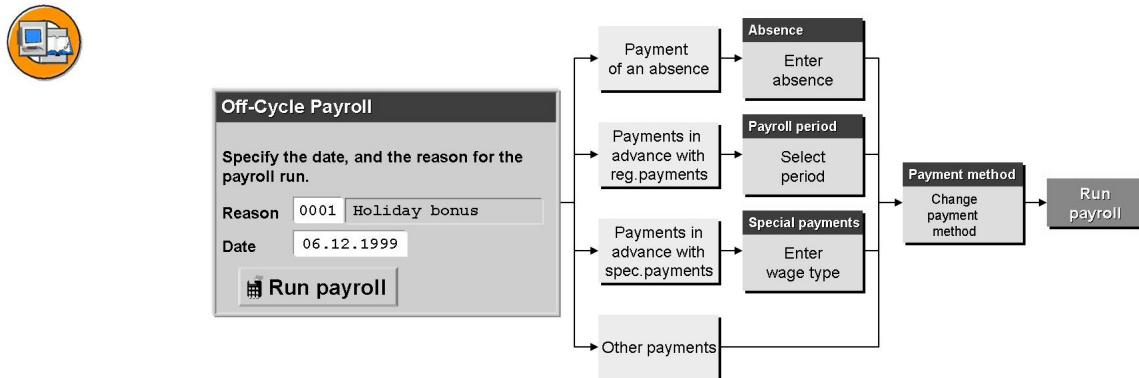


Figure 311: Off-Cycle Payroll Process

The off-cycle reason that is entered controls any further payroll processing.

In the case of **payment of an absence**, the system proposes the absences that have already been entered in the *Absences* infotype (2001), which were entered for off-cycle payroll runs in Payroll Customizing. As an alternative, you can enter an absence directly from the program in the *Absences* infotype (2001). The start and end date is the same for this payroll type. The system writes the reason for Off-Cycle Payroll, the payment date, the payroll type and payroll identifier in the *Absences* infotype (2001).

In the case of **advance payment**, the system offers you the periods for which you can perform payroll. You made this setting in Payroll Customizing. If you are paying several periods in advance, the system carries out a regular payroll run for the last period that is to be paid. Retroactive accounting is used for all the other periods before the last period. There is, therefore, only one original payroll result for several periods, and only one payment is made. The payroll control record is also not taken into consideration in this type of payroll. The employee is only selected again for regular payroll in the last payroll period.

In the case of bonus accounting, you have to enter a wage type that is permitted for infotype 0267.

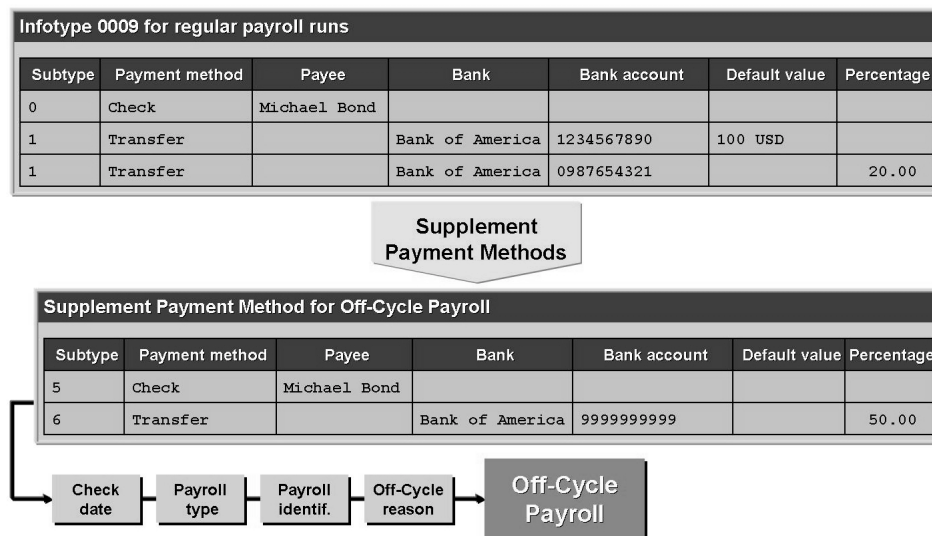


Figure 312: Supplementing Payment Methods

You can change the **payment method** during Off-Cycle Payroll. A record is created for the current payment in the *Bank Details* infotype (0009). This record includes the reason for the Off-Cycle Payroll, the payment date, the payroll type and the identifier. The record is only valid for the current payroll run.

As a default, payment by check is proposed. You can split the payment, and assign main and secondary bank details.

For Off-Cycle Payroll, the system proposes, when requested, the following subtypes of infotype 0009:

Subtype '5' for main bank details

Subtype '6' for secondary bank details

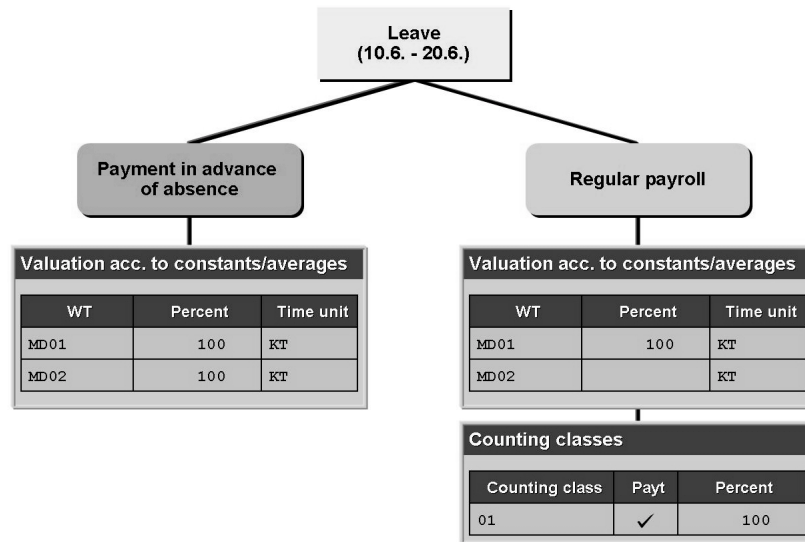


Figure 313: Absence Valuation in Off-Cycle Payroll

There are two procedures for paying absences in advance.

1. In a regular payroll run. In a regular payroll run, payroll is started for an employee after regular payroll is already complete for the relevant payroll area.
2. In a payroll run that only deals with employee absences that should be paid in advance. In this case, you set up special absence valuation rules for Off-Cycle Payroll. Generally, this applies to absences such as leave and other types of time in lieu entitlements.

The process of absence valuation in Off-Cycle Payroll:

1. The off-cycle run is carried out. Absences that are valued in the course of the run are given a special indicator at the start of Off-Cycle Payroll. You can display this indicator in the infotype record for the relevant absence.
2. Payroll is run for the period of the absence that overlaps with the respective payroll periods in a regular payroll run. The RAB function checks whether the absence(s) have the off-cycle indicator flagged. If so, payroll can determine the differences between the new payroll run for the absence and the results in the off-cycle run. You can cumulate the differences in specific wage types and counting classes.

To value absences in Off-Cycle Payroll, two absence valuation rules must be set up for a group of absences.



View Reasons for Off-Cycle Payroll			
OC-reason	Description	OC Category	Payroll type
9000	Sales bonus	02	A
9001	Leave bonus	05	A

01 Regular
02 Bonus
03 Correction
04 Manual check
05 Absence payment
06 Payment in advance of periods
07 On-demand payroll for next period

A Bonus payment
B Correction run
C Manual check
— Regular

Figure 314: Setting Up Reasons for Off-Cycle Payroll

In Off-Cycle Payroll, the administrator first has to select the off-cycle reason.

In this step, you define the reasons that are available to the administrator. You also assign a category to each reason.

The category defines the type of payroll involved, and whether Off-Cycle Payroll is dealing, for example, with a bonus or absence calculation, with a payment-in-advance, or with something else. It is possible that similar reasons have the same category. For example, the reason 'sales bonus' specifies the meaning of the payroll run in more detail.

If you create your own reasons, note that these must begin with 9, Y or Z.



View Reasons for Off-Cycle Payroll			
OC-reason	Description	PSGrp	Absence type
9000	Leave bonus	01	0100 Leave
9001	Leave bonus	01	0110 Leave 1/2 day

View: Valuate Absences			
AbsValGrpg	01		
Valuation rule	01	Paid leave	Start End
Off-cycle indicator	O	Valuation in Off-Cycle Payroll	

Wage type	Percent	Time unit	Day rule
4000	100	AT	WD

Figure 315: Setting Up Off-Cycle Absence Valuations

In the first step, you specify which employee absence times can be valued in an off-cycle payroll run. To do so, you assign an off-cycle reason to each of the relevant absence types. At the start of the off-cycle payroll run, the system then proposes to the administrator all of the employee's absences, for which off-cycle reasons have been assigned to absence types in Customizing.

In the next step, you specify the following absence valuation rules:

For the valuation of absences in the off-cycle payroll run

For the valuation of absences in the regular payroll run if an off-cycle payroll run has already taken place.

To be able to set up the absence valuation table you require an additional key field: the indicator for the absence valuation in the off-cycle payroll. Depending on this indicator, you can access various views of this table.

Absence valuation:

Indicator **O** (valuation in the off-cycle payroll run): Here, you can only enter constants/averages.

Indicator **R** (valuation in regular payroll run with OC indicator): Here, you can display all absence valuation methods ("as if" principle, counting classes and so on).

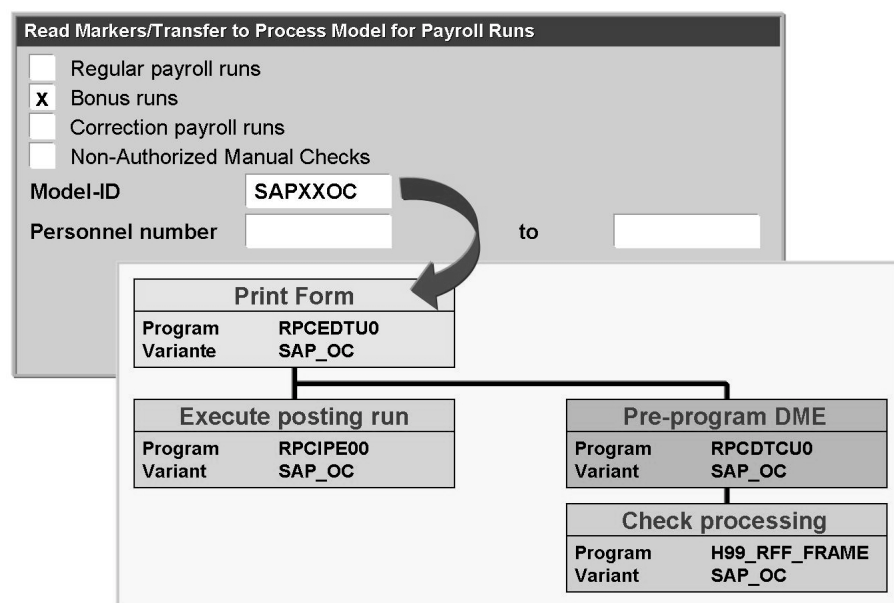


Figure 316: Creating Process Models

Subsequent activities are necessary for all off-cycle payroll runs. The reports to be executed must be grouped together in process models.

The sequence of processing steps is defined in process models. A process model has the following advantages:

- It clearly illustrates how individual processing steps are linked together
- It makes it possible to execute programs on a parallel basis
- It makes it possible to easily repeat processes
- It clearly illustrates the status of the process and the personnel numbers
- It makes it easy to navigate to the job log and the program log

If you use both the Off-Cycle Payroll function and the check replacement function, you require two different process models because the pre-program DME is already integrated in the check replacement procedure. Unlike this, running pre-program DME for off-cycle payroll runs is a subsequent activity and must be started in the process model.

SAP provides several process models as a sample and template.

Appendix 2

Data Used in the Exercises

Type of Data	Data in the Training Center	Object IDs (if available)
Group number (##)	00-30	
Year (YYYY)	Current year	
Company Code	CABB	
Personnel Area	CABB	
Personnel Subarea	0003 Purchasing	
Employee subgroup	X7	
Organizational unit	Human Resources Consolidated Group	30015452
Organizational unit	## Human Resources	
Organizational unit	## Personnel Administration	
Organizational unit	## Personnel Development	
Job	## Administrator	
Position	## Administrator for Personnel Administration	
Position	## Administrator for Personnel Development	
Job	## Manager	
Position	## Personnel Development Manager	
Cost Center	4711 or 4712	
Person		111991##
Person		050995##

Type of Data	Data in the Training Center	Object IDs (if available)
Task	00 Employee Management	98000152
Task	00 Run Reports	98000153
Task	00 Perform Presentations	98000154

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Feedback

SAP AG has made every effort in the preparation of this course to ensure the accuracy and completeness of the materials. If you have any corrections or suggestions for improvement, please record them in the appropriate place in the course evaluation.